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A COMPARATIVE STUDY OF SECONDARY SCHOOL INDEPENDENT STUDY
PROGRAMS. FINAL REPORT.

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DESCRIPTORS- *PROGRAM EVALUATION, CASE STUDIES (EDUCATION), *PROGRAM EFFECTIVENESS, *INDEPENDENT STUDY, INDIVIDUAL INSTRUCTION,

THE PURPOSE OF THIS STUDY WAS TO IDENTIFY THE CHARACTERISTICS WHICH CONTRIBUTE TO SUCCESSFUL SECONDARY SCHOOL INDEPENDENT STUDY PROGRAMS (ISPS). THE METHOD CHOSEN TO ACCOMPLISH THIS PURPOSE INVOLVED THREE STEPS--(1) THE IDENTIFICATION OF THE INDEPENDENT STUDY PROGRAM CHARACTERISTICS RECOMMENDED IN THE LITERATURE, (2) CASE STUDIES OF THREE HIGHLY SUCCESSFUL AND SIX LESS SUCCESSFUL ISPS, AND (3) COMPARISONS OF THE CHARACTERISTICS IDENTIFIED IN THE FIRST TWO STEPS. OF THE 18 MAJOR CONCLUSIONS PRESENTED, THE MOST IMPORTANT IS THAT OBJECTIVES ARE MORE FREQUENTLY DISCUSSED AND BETTER UNDERSTOOD IN SUCCESSFUL PROGRAMS THAN THEY ARE IN LESS SUCCESSFUL ONES. (AUTHOR/RD)

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A COMPARATIVE STUDY OF SECONDARY SCHOOL INDEPENDENT STUDY PROGRAMS

Marvin LeRoy Evans

University of Oregon

Eugene, Oregon

February 1968

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M. L. E.

An Abstract of the Thesis of

Marvin LeRoy Evans for the degree of Doctor of Education
in the School of Education to be taken March 1968

Title: A Comparative Study of Secondary School Independent Study Programs

Approved: ______________________________
(Thesis Adviser, Arthur C. Hearn)

Statement of the Problem

The purpose of this study was to identify the characteristics of certain secondary school independent study programs to determine the relationship between these characteristics and the effectiveness of the program, and to compare these existing characteristics to those recommended in the literature. Specific attention was given to 12 characteristic areas: (1) program objectives; (2) staff leadership; (3) general organization for instruction; (4) independent study program organization; (5) origin of study activities; (6) motivation techniques; (7) preparation of students; (8) supervision of students; (9) physical facilities; (10) material and human resources; (11) evaluation; and (12) staff in-service activities.

Procedures

The independent study programs in nine schools were classified, with advice from a panel of five national experts, as successful independent study programs or as less successful independent study programs. Case studies were written for each of the nine programs using data collected during a three-day visit to each program. Data collection techniques included observations, interviews, and questionnaires. Samples within each school included about 45 students at each grade level, at least 60 per cent of the teachers, all administrators, a librarian, an audio visual specialist, and other individuals having information about the independent study program.

Comparisons were then made between characteristics found in successful programs, those found in less successful programs, and those recommended in the literature.

Summary of the Results

1. The extent to which staff members gave attention to and were knowledgeable about program objectives was a factor in the success of the program.

2. When teachers were asked to identify the objectives which had received the greatest emphasis in the I. S. program in their schools,

similar responses were received in the successful and in the less successful programs. Slightly more emphasis was placed on providing for individual student differences and on developing an inquiring mind in the successful programs.

3. The ability of teachers to identify sources of strong leadership in the independent study program was positively related to the success of that program.

4. The source of leadership was not as important as the fact that leadership existed. Teachers in successful I. S. programs identified three different sources of primary leadership--the principal, other administrators, and a committee of teachers.

5. Teachers in successful programs assumed greater leadership responsibilities than did those in less successful programs.

6. Successful programs provided more opportunities for each student to be engaged in learning activities uniquely fitted to his needs than did less successful programs. There was greater emphasis on analysis of individual needs and more willingness to allow students to deviate from the standard program.

7. Teachers in successful programs were provided with time to work individually with students in their I. S. activities.

8. Successful programs placed slightly more limits on student movements during I. S. time and were more consistent in enforcing

these limits than were less successful programs. (The most common limits consisted of restricting student movement between study areas to the passing time between modules and requiring students to stay on campus during the school day.)

9. Successful schools deliberately built into the program a wide variety of motivational techniques designed to stimulate student interest in independent study activities.

10. Students in successful programs felt that greater pressure was exerted on them to make productive use of their I. S. time than did students in less successful programs. These pressures were identified as coming from grades, teachers, parents, other adults, and other students.

11. Students in successful programs received more help from teachers, both in class and outside of class, in developing an understanding of the independent study program and adjusting to it.

12. The use of aides, selected for their ability to provide assistance to students, increased the effectiveness of an independent study program.

13. Suitable physical facilities were important but were provided without extensive remodeling in most existing school plants.

14. The ways in which physical facilities were used was as important as the actual design of those facilities.

15. Superior independent study programs provided students with easy accessibility to a good collection of printed and AV resources designed to take care of a broad range of interests and abilities.

16. Students in successful programs were given more encouragement by, and actually made more use of, their own teachers and other teachers in connection with their I. S. work than did students in less successful programs.

17. Teachers in successful programs provided more help for students in evaluating their own progress than did teachers in less successful programs.

18. Substantially greater effort was placed on in-service activities pertaining to the independent study program in successful programs than in less successful programs.

CHAPTER I

INTRODUCTION

Among the problems confronting America's secondary schools today are increased enrollments, shortage of competent teachers, and greater numbers of students going on to universities. In addition contemporary writings in education reflect an increased intent to reappraise, and in many cases to redesign, the student's role as an autonomous or semiautonomous participant in the educative process.[1]

One manifestation of the concern for these factors has been the renewed interest in the independent study program. Within the last five years six Oregon high schools - Bend, Marshall, Willamette, Sheldon, Junction City, and Jackson - have inaugurated school-wide programs which include independent study as an integral part. Several other Oregon schools plan to adopt similar programs in the near future. Furthermore, at the request of the participants in four summer workshops for Oregon secondary schools principals,[1] these workshops have been devoted to the principles of flexible scheduling and to its problems, among which provision for independent study is central.

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[1] Jacques Barzun, Teacher in America, Boston: Little, Brown and Co., 1945; David W. Beggs and Edward G. Buffie, editors, Independent Study, Bloomington, Indiana: Indiana University Press, 1965; Jerome S. Bruner, On Knowing, Cambridge: The Belknap Press of Harvard University Press, 1962; J. R. Suchman, "Inquiry Training: Building Skills for Autonomous Inquiry," Merrill Palmer Quarterly, 7, July, 1961, 147-69; Herbert A. Thelan, Education and the Human Quest, New York: Harper and Brothers, 1960; J. Lloyd, Trump and Dorsey Baynham, Guide to Better Schools, Chicago: Rand McNally and Co., 1961.

Educators whose schools either now employ flexible scheduling or plan its adoption soon as well as the participants in these principals' workshops identify independent study as the particular aspect of flexible scheduling which most concerns them.

A national concern for the same problem is reflected in the National Association of Secondary School Principals' request for information on this topic from its membership.[2] NASSP has also been involved in a nine year "Staff Utilization" study, with independent study as one of its major focal points.[3]

Although a review of the literature reveals a strong case for the independent study program and identifies numerous reports on both theoretical and functioning programs, a paucity of research-based data becomes apparent when the search begins for foundations on which a school or school system may build an independent study program. A few reports are available in which an evaluation of a program and a description of that program are presented. One of the better documented of these is from the University of Chicago laboratory school.[1]

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[1] Workshops during summers of 1962, 1963, 1965, 1966, jointly sponsored by the Oregon Association of Secondary School Principals, The University of Oregon, and the State Department of Education.

[2] NASSP Spotlight, 66, January-February, 1965, p. 1.

[3] National Association of Secondary School Principals, The Bulletin, 46, January, 1962, entire issue.

But no literature was found which attempted any correlation between the degree of success of a secondary program and the characteristics of such a program. It is the author's hope that this study is a first step in filling that void. This study uses independent study program characteristics recommended in the literature as a base line against which to compare existing practices in the schools studied and some analyses have been made as to the effectiveness of the existing practices.

Purpose

The general purpose of this study is to identify the characteristics of certain secondary school independent study programs.

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[1] Willard J. Congreve, 'Learning Center . . . Catalyst for Change?" Educational Leadership, 21, January, 1964, pp. 211-13; Beggs and Buffie, op. cit., Chapter 3.

determine the relationship between these characteristics and the effectiveness of the programs, and compare these existing characteristics to those recommended in the literature.

This study attempts to answer the following specific questions:

1. What are the stated and understood program objectives in functioning independent study programs?

2. What are the general organizations for instruction in schools with independent study programs?

3. What are the independent study program organizational frameworks in existing programs?

4. What are the staff leadership patterns, as related to the independent study program, in existing programs?

5. Where and how do study activities originate in existing programs?

6. What are the student motivation techniques used in existing programs?

7. What are the techniques used to prepare and assist students to make effective use of independent study time?

8. What are the student-supervision practices in existing independent study programs?

9. What physical facilities are used in existing independent study programs?

10. What material and human resources are used, and how are they organized in existing independent study programs?

11. What evaluation procedures are used to determine student and program progress in existing independent study programs?

12. What staff in-service training is done in existing independent study programs?

13. How do each of the items investigated in the above twelve questions differ from what is recommended in the professional literature?

This study defines an independent study program as a program in which at least 50 per cent of all students in a school have at least 20 per cent of their in-school time allotted to independent study rather than to regular class assignments. This independent study work may be either assigned or unassigned and either related or non-related to course requirements. The independent study program is in at least its second year of operation, and it is characterized by freedom of constant supervision of students and implies the belief that all students possess potentialities for self-initiative, resourcefulness, productivity, and self-evaluation.[1]

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[1] Basic idea taken from William M. Griffin, "A Study of the Relationship of Certain Characteristics of High School Seniors to Effectiveness in Independent Study." (unpublished Doctoral dissertation, Syracuse University, June, 1964), p. 14.

This study considers a secondary school to include grades 10, 11, and 12, and may also include grade 9.

Procedures

Identification of the Population

Secondary schools having independent study programs which might meet the definitions used in this study were identified from the literature, state departments of education, and certain individuals particularly knowledgeable in this subject.

State Directors of Secondary Education in the 48 states were contacted by letter and asked to identify schools which might fit within the study.[1] Follow-up cards were sent to those not originally responding. Replies were received from 42. Seven individuals from professional associations or universities which have actively worked with schools operating independent study programs were contacted. Each of these individuals responsed with a list of suggested schools.

One hundred twenty two schools were tentatively identified as having an independent study program in operation. Each was queried by letter as to the following:

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[1] See Appendix A.

1. The nature of its independent study program.
2. The student enrollment by grade level.
3. The percentage of students participating in the independent study program.
4. The percentage of student in-school time spent in independent study.
5. The number of years the program had been operating.
6. The ability levels of the students participating in the program.[1]

Replies were received from 113 schools, in some cases after a second letter had been sent.

Twenty-three schools were then identified which had independent study programs in at least the second year of operation and in which at least 50 per cent of the students participated for at least 20 per cent of their school day. Five of these schools were eliminated because they had an enrollment of less than one hundred fifty.

Selection of School Sample

To facilitate the identification of independent study program phenomena which lead to program success, as opposed to those which are not beneficial, an attempt was made to select five schools which were operating relatively successful programs and five which were operating relatively unsuccessful programs. A panel of five experts was used to make an initial qualitative judgment. The panel was composed of Dr. J. Lloyd Trump, Associate Secretary of the National Association of Secondary School Principals; Dr. J. Paul Anderson, Associate Director, NASSP; Dr. Lloyd S. Michael, Superintendent, Evanston Township High School; Dr. Dwight Allen, Professor of Education, Stanford University; and Dr. Robert Bush, Professor of Education, Stanford University.

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[1] See Appendix B.

Each panel member was given a rating form for each of the twenty-three schools. He was asked to evaluate the independent study program in each school and to identify the sources of information upon which he formed his judgment.[1] Basing their choices on these expert opinions, the researcher, Dr. Arthur Hearn, and Dr. Francis Rummel then selected five successful and five less successful programs. Since in several cases only one or two of the experts had personally observed a particular program, the qualitative judgments (i.e., "successful" or "less successful") were considered to be tentative and subject to review based upon the data collected and the observation of the researcher during this study.

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[1] See Appendix C.

The ten schools selected were contacted by letter[1] to ask their cooperation in the study. Eight accepted, four in each quality group. A ninth school, whose program bordered on success, was added, resulting in five successful and four less successful programs for the study. Based on the data collected and the observations of the researcher while conducting the study, two programs were reclassified from successful to less successful. The completed study thus identifies three successful and six less successful programs. The evidence to support these two reclassifications is presented in Chapter III.

Selection of Personnel Samples

Teachers. All teachers were asked to complete a data-collection instrument. Table 1 shows the number of teachers in each school and the number of usable responses obtained. In each school each subject area is represented in the sample.

Students. A structured sample of at least 40 students from each grade level in each school was sought, ten above average in academic ability, ten below average, and twenty average. Ability was determined by the most current group scholastic aptitude score

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[1] See Appendix D.

TABLE 1

NUMBER OF TEACHERS IN EACH SCHOOL AND NUMBER OF USABLE RESPONSES RECEIVED

School	Number of Teachers[a]	Number Responding	Percentage Responding
A	50	42	84
B	100	80	80
C	68[b]	45	66
D	58	44	76
E	113	70	62
F	39	34	87
G	99	70	71
H	35	25	71
I	55	39	71

[a] All teachers and counselors including part-time and those who travel between buildings.

[b] Includes grades 7-12.

available in school records. If aptitude scores were not available, achievement test scores were used. The average range was ± 2/3 SD (standard deviation) from the mean; the below-average range included all scores lower than 2/3 SD below the mean; and the above-average range included all scores higher than 2/3 SD above the mean. Students were ramdomly selected within their ability range and year in school. Table 2 indicates the actual number of students from whom information was finally obtained. It also shows the distribution of these students by grade level and indicates whether aptitude (Apt) or achievement (Ach) test scores were used in their selection.

TABLE 2

USABLE STUDENT RESPONSES RECEIVED BY GRADE AND ABILITY LEVEL

Grade	Ability Level[a]	Schools									Total
		A	B	C	D	E	F	G	H	I	
9	L	-	13	7	-	10	9	-	10	12	61
9	A	-	22	25	-	21	28	-	22	20	138
9	H	-	14	12	-	14	12	-	10	11	73
10	L	15	9	4	1	13	7	10	8	10	77
10	A	27	20	23	10	23	18	21	22	27	191
10	H	15	14	14	15	12	12	14	14	15	125
11	L	11	11	8	0	11	10	7	11	9	78
11	A	24	19	26	7	25	23	19	22	22	187
11	H	13	12	11	14	10	11	10	15	12	108
12	L	11	11	7	5	7	11	11	10	10	83
12	A	22	23	22	24	23	25	18	19	26	202
12	H	12	7	14	14	13	13	10	12	12	107
		150	175	173	90	182	179	120	175	186	
Screening Test		Apt	Ach	Ach	Ach	Apt	Apt	Ach	Apt	Ach	

[a] L = low
A = average
H = high

Administrators. Each administrator was asked to complete a data-collecting instrument. Usable responses were obtained from all of them.

Administrative Directors. Each principal was asked to designate one person who was thoroughly familiar with both the development and the present operation of the independent study program. Five principals named themselves and four named another administrative officer. An interview, approximately three hours in length, was completed with each administrative director.

Librarians. The head librarian in each school was interviewed.

Audio-Visual (AV) Directors. The staff member responsible for AV equipment and materials in each school was interviewed.

Other Personnel. Other individuals interviewed were those who had specific information pertinent to the study in each school. These included chairmen of independent study committees and other teachers who were particularly active in the development of the program.

Development of the Instruments

Seven data collecting instruments were designed: (1) Students, (2) Teachers, (3) Administrative Directors, (4) Administrators,

(5) Librarians, (6) AV Directors, and (7) Physical Facilities Data-Sheet.[1] Because of the uniqueness of each program and the need for a complete description of each program, respondents were encouraged to add any information that they felt might help the researcher to get a comprehensive picture of the independent study program, even though the data-collecting instruments might not have specifically identified information of this nature.

Characteristic Areas. The first step in developing the data-collecting instruments was to analyze a theoretical independent study program so that its significant component characteristics might be identified. This analysis resulted in the identification of the anticipated characteristic areas listed in Table 3. These areas were basically derived from sources such as Trump and Baynham.[2] The readings were supplemented by interviews with many practicing educators, notable among which were Dr. Gaynor Petrequin, Principal, Marshall High School, Portland, Oregon; Ray Talbert, Director, The Oregon Compact, Salem, Oregon; Roy Carlson, Principal, Jackson High School, Portland, Oregon; and Dr. Don DeLay, Director of Scheduling Services at Stanford University. This was further supplemented by observations at Marshall High School. The final list, as outlined in Table 3, was then approved by the thesis committee.[1]

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[1] See Appendices E through K, respectively.

[2] Trump and Baynham, op. cit.

TABLE 3

ANTICIPATED CHARACTERISTIC AREAS OF INDEPENDENT STUDY PROGRAMS

Program objectives - What are the stated and understood proobjectives?

Staff leadership - What are the organizational and actual sources of leadership in the independent study programs?

General organization for instruction - What are the allotments of time during the school day, students' and teachers' schedules, and required time commitments?

Independent study program organization - Which students take part in the program and to what extent? What are the responsibilities of students and staff members?

Origin of study activities - Where do study activities originate - from students, teachers, or the program?

Motivation techniques - What motivation techniques are used to stimulate student interest in independent study?

Preparation of students - What techniques are used to prepare and assist students in making effective use of independent study time?

Supervision of students - To what extent are students supervised during independent study time and how is this done?

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[1] A. C. Hearn, J. Francis Rummel, Paul Kambly, and Roy Paul Nelson.

TABLE 3-continued

Physical facilities - What physical facilities are used in the program and at what times and under what circumstances are they available to students ?

Material and human resources - What material and human resources are used and how are they made available to the student ?

Evaluation - What means are used to evaluate the progress of individual students and the program in general ?

Staff in-service Activities - What kinds of in-service work are done with certified and non-certified personnel ?

Attitudes toward program - What are the likes, dislikes and general evaluation by students, teachers, and administrators in the program ?

Designing the Instruments. The specific information required in each characteristic area was then determined and decisions made as to which school personnel could best supply that information. After the questions were written they were reviewed by other graduate students, staff members of schools with independent-study programs, and thesis committee members. Revisions were made and the instruments were then administered to students and staff members at Willamette High School, Eugene, Oregon, prior to the final revision.

All instruments were designed to be administered and/or completed by the researcher. The student, teacher, and administrator forms were completed by the respondents under the direction of the researcher. Some adjustments due to the terminology and practices unique to a particular school were made at the time of interview. The administrative director, librarian, and AV director forms were completed by the researcher during interviews with these participants. The Physical Facilities Data Sheet was used as a means of getting and recording complete data relative to the physical facilities of each school.

Collection of the Data

All data were collected during a three-day visitation in each of the nine schools. Although the prepared instruments were always used, emphasis was placed on the researcher getting as complete an understanding of the characteristics of the independent study program in each particular school as possible. This entailed making some adjustments in the data-collecting instruments and identifying and interviewing other key personnel as the need became apparent.

Preliminary information necessary for both the school and the researcher to establish the data collection procedure was exchanged by letter.[1] The time schedule for the visitations was arranged by telephone. All visits were made between March 21, 1966, and May 3, 1966.

The first activity of the researcher in each school was the interview with the administrative director, during which time arrangements were also made for the rest of the data collection.

Next the student samples were selected by the researcher from lists of test scores or from student cumulative folders. Test mean scores and cut-off scores had been determined prior to the visitation. Meeting times were then determined and the students were notified.

The original plan called for the researcher to meet with the student sample from each grade level as a separate group. But because it was easier for the schools, two grade levels were scheduled at the same time. This change presented no problem to collecting the data. These student meetings were conducted either during the second or third days of the researcher's visit.

The formal collection of data from teachers was made in an after-school faculty meeting held on any of the three days. To insure a sampling that was adequately representative of all subject areas and grade levels, the researcher often had to seek out teachers who had missed the meeting.

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[1] See Appendices D and L.

Organization of the Study

Chapter II reviews practices recommended in the literature for operating effective secondary school independent study programs. Chapter III presents descriptive case studies of the nine I.S. programs in which data were collected. Chapter IV makes comparisons among practices recommended in the literature, those found in successful programs and those found in less successful programs. Chapter V presents the summary, conclusions, and recommendations.

Procedures for Analysis of the Data

Data from both student and teacher questionnaires were coded and recorded on data processing cards for statistical computation. Tabulations were made for each school individually and for all schools collectively. Two scales are used for reporting the statistical data:

For questions to which the response might be one of these four choices--"Greatly," "Moderately," "Little," "Not at all"--a numerical value was assigned each response, as follows:

Greatly:	1.00
Moderately:	2.00
Little:	3.00
Not at all:	4.00

This made it possible to get an average for each question either by school or for all schools. For example, if the average for all students on a given question was 2.31 then the average response fell between Moderately (2.00) and Little (3.00), but closer to Moderately.

Percentages are used to report results on questions which did not have the "Greatly" to "Not at all" response choices.

CHAPTER II

RELATED RESEARCH

Although many writers have written about the importance of helping the young learner to become as autonomous as possible, none have dealt with the topic of independent study as comprehensively as Trump. As a result, much of the information presented on the following pages has been drawn from Trump's writings. Other authors have also been cited but credit must be given to Trump for much of the base line information available in present literature.

Each of the 13 characteristic areas outlined in Chapter I has been treated individually in this chapter.

Program Objectives

Although they are stated in many different ways, writers most commonly identify the objectives of independent study as (1) to provide a structure which permits maximum program individualization for each student;[1] (2) to assist students in developing an inquiring mind;[1] (3) to encourage more creative work by students;[2] (4) to teach, and to provide reinforcement through use of the learning skills needed by the individual;[3] (5) to encourage autonomous learning;[4] (6) to develop self-discipline and decision-making skills;[5] and (7) to increase student motivation for learning by increasing student involvement in decisions concerning his education.[6]

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[1] J. Lloyd Trump and Dorsey Baynham, Guide to Better Schools, Chicago: Rand McNally and Co., 1961, pp. 26-29; Herbert A. Thelan, Education and the Human Quest, New York: Harper and Brothers, 1960, pp. 89-90; Dwight W. Allen, "Individualized Instruction," CTA Journal, 61, October, 1965, pp. 27-50.

The first of these objectives is explained by Allen in an article in the CTA Journal:

> Individualization is a type of instruction in which the student engages in activities uniquely appropriate to his learning. This type of instruction promotes independence, provides opportunities for study beyond the regular curriculum, and permits maximum use of instructional resources.[7]

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[1] Trump and Baynham, op. cit., pp. 5-6; Thelan, op. cit., pp. 105-109.

[2] Trump and Baynham, op. cit., p. 26.

[3] Ibid., pp. 5-6.

[4] Ibid., p. 26; Thelan, op. cit., pp. 89-90; Jacques Barzun, Teacher in America, Boston: Little, Brown and Co., 1945, p. 21.

[5] Trump and Baynham, op. cit., p. 5; Thelan, op. cit., p. 89; Allen, op. cit., p. 27.

[6] Trump and Baynham, op. cit., p. 6; Thelan, op. cit., pp. 89-90; J. R. Suchman, "Inquiry Training: Building Skills for Autonomous Inquiry," Merrill Palmer Quarterly, 7, July, 1961, p. 151.

[7] Allen, op. cit., p. 27.

Story, while reviewing the merits of the "Winnetka Plan," indicates that the efforts to individualize programs is not new.

> The extraordinary merits of the "Winnetka Plan" and other similar innovations have long been recognized, but the means to make them work with unqualified success have seemed almost inaccessible. What these plans developed in common, however, is precisely the ingredient for which our modern schools are frantically groping. They began, boldly and unabashedly, with the acceptance of individual rates of learning and tried, in a revolutionary way, to actually do something about it for every student.[1]

Trump contends that today's instruction may actually be retarding the development of inquiring minds. He says:

> The pupil works his way through a school assignment, shuts the book, and moves on in the ordered regularity of his schedule. Any lingering wonder, any curiosity, is buried under the necessity to turn to other work . . . .
>
> We must develop the spirit of inquiry in young people. As they go through school, they should learn to react critically to what they read and hear and to approach problems with the curiosity, the will, and the techniques to solve them.[2]

As for encouraging creativity he says:

> . . . each of us needs opportunities to engage in learning things our own ways, developing competencies in line with our

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[1] M. L. Story, "Let's Give Winnetka Another Chance," Education Forum, 28, November 1962, p. 100.

[2] Trump and Baynham, op. cit., pp. 5-6.

> own special interests, and, to the extent of our abilities, to become creative in what we do.[1]

Frank, in the 1963 ASCD yearbook, directs attention to the importance of the student actually learning how to learn.

> When we shift the emphasis from learning of facts, memorizing of specific knowledge, and training in skills to the study of learning as a dynamic process, we begin to realize that the basic task facing the child is learning to learn, that is, learning so that he can, without further teaching, continue to learn to cope with new tasks and problems.[2]

Closely related to the student's need to discover how to learn is his need to become as autonomous as possible in pursuing learning. Barzun sums up the point when he says:

> The whole aim of good teaching is to turn the young learner, by nature a little copy cat, into an independent self-propelling creature, who cannot merely learn but study -- that is, work as his own boss to the limit of his powers. This is to turn pupils into students, and it can be done on any rung of the ladder of learning.[3]

Emphasis has also been placed on the need for the student to take part in important decision-making situations as they pertain to his own education. Trump states that students are "directed and supported virtually every step of the way through high schools" and, as a result, "find it difficult to travel on their own when they reach college or go to work on a job."[1] Olivero adds that for adolescents to develop decision-making skill, they must be involved in decisions more significant than selecting the right pair of sox.[2]

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[1] J. Lloyd Trump, "Independent Study," A mimeographed publication from the NASSP, 1963, p. 1.

[2] Lawrence H. Frank, "Four Ways to Look at Potentialities" (Chapter I), New Insights and the Curriculum, Washington D. C.: National Education Association, 1963, p. 33.

[3] Barzun, op. cit., p. 21.

Frequent references are made in the literature to the increased motivation that is apparent when students are involved in activities or investigations because of their own interest. Thelan makes the point as he discusses the potential outcomes of his system of personal inquiry:

> Probably the most distinctive feature of the whole thing will be the deep involvement of the student - his absorption, his concern, his releasing of a great deal of effort and energy into the activity; and there will be a commensurate emergence of insight from the well; spring of this meaningful experience.[3]

Staff Leadership

Little information about staff leadership patterns in independent study programs is available in the literature. Trump does refer frequently to the need for teachers to make "professional decisions" about the programs and activities of individual students. He also refers to the increased professional status which will accrue to teachers as their professional role is more clearly identified and as they become responsible for the direction of other members of the instructional staff. Probably of more significance is his recognition of the need for teachers to play a key role in the design and implementation of improved practices in education.[1]

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[1] Trump and Baynham, op. cit., p. 5.

[2] James Olivero, in a personal interview at Poway, California, April, 1966.

[3] Thelan, op. cit., p. 90.

Congreve, principal of the University of Chicago Laboratory School, stresses the importance of establishing a climate in which teachers feel free to assume leadership in designing the instructional situation. He attributes much of the success of his school's independent study program to the leadership of competent teachers.[2]

Trump also addresses himself to the new role of the principal, which he sees as one of much greater involvement in the designing and evaluation of the instructional program. He emphasizes the principal's role in helping to design programs providing suitable in-service training for the staff, and in evaluating the results of programs to aid in improving the total program.[1]

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[1] Trump and Baynham, op. cit.

[2] Willard J. Congreve, "Teachers Develop Plan for Independent Study," Chicago School Journal, 46, April 1965, pp. 289-296.

General Organization for Instruction

Independent study programs are operating both in schools with modular and with traditional schedules. However, of those schools which the literature identified as having 50 per cent or more of their students on independent study for at least 20 per cent of the student's time, none operated on a traditional schedule.

Once again, the base line must be established primarily from Trump's writings, which strongly advocate a modular schedule. He recommends heavy use of team teaching and the adjustment of the size of student groups to the particular instructional need. He recommends that a 20-minute module is generally appropriate. He would have students typically spend about 40 per cent of their time in large groups, 20 per cent in small groups, and 40 per cent in independent study. He emphasizes the need to individualize each student's schedule according to the student's educational needs and capacities.

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[1] Trump and Baynham, op. cit., pp. 65-70.

The total instructional organization would be characterized by much greater flexibility with regard to time than that which is possible with the traditional schedule. Length and size of classes would vary according to the need of each class and according to the need of each student.

Curriculum organization would be strongly influenced by three questions: "(1) What can students learn largely by themselves? (2) What can students learn from explanations by others? and (3) What requires personal interaction among students and teachers?"[1]

Independent Study Program Organization

When the literature is reviewed to determine which students should be provided with substantial amounts of independent study, some differences appear.

Allardice and Duncan, Brannon, Glathorn and Monroe, and School Management magazine each report on successful programs for the academically able.[2] On the other hand, Congreve found that interest and ability to accept responsibility for learning does not seem to be related to intelligence.[1]

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[1] Ibid., p. 104.

[2] David Allardice and William F. Duncan, "Intelligent Self-Direction in High School: An Analysis of the Effects Upon Students and Staff of a Pilot Study at Northport High School," Project, Columbia University, 1966; M. J. Brannon, "Individual Mathematics

Trump, in referring to students with "limited skills, interests, and creative impulses," supports the principle of independent study of some kind for all students.

> . . . Students in this category need definite assignments with close supervision to see that they follow the directions that are given to them. Such students are assigned to work in conventional study halls, conventional libraries, conventional laboratories, or other usual school facilities. The number of students whose independent study is thus restricted should be held as low as possible; in fact, the goal of the school should be to reduce their number to zero. All students need to learn how to learn.
>
> Most students, including those with relatively limited abilities, need to participate in a different type of independent study for as much time as is deemed profitable. A professional decision involving teachers, counselors, and administrators should determine how much and what kind of independent study will be productive for a given pupil.[2]

It should be noted that Trump sees independent study as an important part of each student's program, but that the nature and extent of this independent study is determined on an individual basis.

Study Plan," Mathematics Teacher, 55, January, 1962, pp. 52-56; Allen A. Glathorn and Carl Malone, A Program for the Gifted Student in the Abington Senior High School, Abington, Pa: School District of Abington Township, March, 1961; and School Management, "What You Can Do About Overcrowded Classrooms," 8, August, 1964, pp. 54-58.

[1] Willard J. Congreve, "Learning Center . . . Catalyst for Change?" Educational Leadership, 21, January, 1964, p. 247.

[2] Trump, op. cit., pp. 2-3.

Origin of Study Activities

Emphasis on the student playing a significant role in planning his independent study activities is either stated or strongly implied by Trump, Thelan, Suchman, Congreve, Marquette, Herman, and Berger.[1]

The origin of activities engaged in during independent study time may be divided into three areas.

(1) Specific assignments are made by a teacher, either to an individual student or a group of students. A certain reading assignment may be given prior to a large group presentation. A teacher or group of teachers may identify a small group of students who need help in developing a specific skill or concept understanding and give these students certain readings or exercises to complete. These same kinds of assignments may be given to individuals.

(2) Although these activities are still teacher initiated, students are given much more latitude to pursue aspects of the subject of

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[1] Ibid.,; Thelan, op. cit., pp. 89-90; Suchman, op. cit., p. 151; Congreve, "Learning Center . . . Catalyst for Change?" op. cit., pp. 211-247; D. Marquette, "Independent Study - Effective Programs or Waste of Time?" School Management, 8, September, 1964, p. 124; Jerry J. Herman, "Individualize Your Instruction by Contract Teaching," The Clearing House, 38, May, 1963, pp. 551-554; Sylvia Berger, "A Language Laboratory Experiment," High Points, 49, October, 1964, pp. 49-55.

particular interest to them. For example, a teacher may request that all students in a particular class select some aspect of the subject area of interest to them, develop a project, and select a means of sharing their information with the rest of the class.

(3) The third source for these activities is the student, himself. To develop this source, the school must provide time, facilities, and resources (both material and human) so that each individual has the opportunity to investigate his own interests. In many cases these activities will be extensions of regular class work, but they may be unrelated.

Attention is given by most writers in the field to the need for identifying the ability of each student to handle different levels of independent study. Even Trump suggests that certain students with limited interests, skills, and creative impulses need a more structured learning situation than other students.

> . . . Students in this category need definite assignments with close supervision to see that they follow the diredtions that are given to them. Such students are assigned to work in conventional study halls, conventional libraries, conventional laboratories, or other usual school facilities. The number of students whose independent study is thus restricted should be held as low as possible; in fact, the goal of the school should be to reduce their number to zero. All students need to learn how to learn.[1]

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[1] Trump, op. cit., p. 2.

Motivation Techniques

Central to the development of motivation for independent study is the creation of a suitable atmosphere. Trump, Thelan, Suchman and Bowman[1] each indicate that once the proper climate is developed and the student becomes an active part of the situation, motivation tends to become cyclical in nature. Bowman says:

> This goal is based on the theoretical assumption that the personal experience of success by the pupil in using his own resources to solve new problems is exciting, satisying, and habit-forming. The thrill of discovery whets the appetite for more problems and solutions.[2]

Suchman, in reviewing the works of Bruner, Piaget, Beberman, Hendrix, Karplus, Wertheimer, and Suchman, says, " . . . exploration, manipulation, and mastery are intrinsically motivating . . . . "[3]

Trump, in discussing this "suitable atmosphere" directs attention to how the student determines where he must focus his attention.

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[1] Trump and Baynham, op. cit., p. 26; Thelan, op. cit., pp. 89-90; Suchman, op. cit., p. 151; Paul Hoover Bowman, 'Developing Potentiality/Creed or Pipe Dream?" (Chapter 2), New Insights and the Curriculum, Washington, D.C.: National Education Association, 1963, p. 44.

[2] Ibid.

[3] Suchman, op. cit., p. 151.

> . . . immature young people are highly conscious of the values placed by a school on different types of activities. The school that places high value on the quality and quantity of independent study as it appraises and reports individual pupil progress will reap the benefits of superior work by students. Conversely, if the school emphasizes highly the marks on factual examinations, independent study will appear to students as a luxury that may be bypassed.[1]

He also identifies "the reading, listening, and viewing rooms, the cubicles, and the laboratories" as the setting for independent study.[2]

Most writers assign an important responsibility to staff members in developing student interest in independent study.

Trump says that this will be done, in part, in the classrooms by having material presented in an open-ended manner. "That means in such a way that students will be encouraged to question the information, rearrange the data, seek further answers, and try to surpass previous accomplishments."[3]

Marquette indicates that an important characteristic of successful programs is the maintenance of effective student-teacher dialogue concerning the student's independent study activities.[4]

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[1] Trump, op. cit., p. 6.

[2] Trump and Baynham, op. cit., p. 29.

[3] Ibid., p. 27.

[4] Marquette, op. cit., p. 124.

Another dimension to the teacher's role is added by Thelan who believes that it is valuable for the student to have images other than his own against which to compare his experiences and project his thoughts.[1] These other images might also be provided by other students.

Another stimulus to appropriate independent study activity may result from student recognition that independent study opportunities may be revoked. This paper has pointed out that Trump suggests provision be made for supervising those students who cannot work effectively in an unstructured situation.[2]

Preparation of Students

Considerable agreement exists that the development of independent study skills cannot be left to chance, but that students must "learn" the skills necessary to profit from independent study.

Thelan says that for the result of personal inquiry to be effective, it must entail more than the satisfaction of curiosity; it must be educative. Skills learned in the solution of immediate problems are useful to the extent that they can be applied to later situations.[1]

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[1] Thelan, op. cit., p. 107.

[2] Trump, op. cit., p. 2.

More specific direction is given by Trump when he says:

> Specific instruction is essential in such matters as how and where to study, the use of card catalogs, listening, viewing, and reading habits, the use of audio-visual devices, outlining and note taking, techniques of reporting and presenting materials, and in evaluating personal efforts.[2]

In addition he identifies "teachers, librarians, instruction assistants, consultants outside the school, and the school principal and his assistants"[3] as the personnel involved in helping students learn independent study skills.

Throughout his writings Trump repeats the basic theme that students have varying abilities to think and solve problems on their own, but that it is the school's responsibility to help each student increase these skills.[4]

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[1] Thelan, op. cit., p. 105.

[2] Trump, op. cit., p. 3.

[3] Ibid., p. 3.

[4] Trump and Baynham, op. cit., p. 29.

Supervision of Students

Most of those who have written about independent study do not address themselves specifically to the question of supervision of students, but instead deal with the general notion that students can be given more freedom than exists in the traditional school program.

Some descriptions of programs now in operation, however, do discuss the need for direct supervision of some portions of the student body, usually for disciplinary reasons.[1]

Once again we turn to Trump for more specific direction. Although he emphasizes the school's responsibility for helping students to acquire the desired independent study skills, he also indicates that supervision is necessary.

> Students are scheduled into the workrooms and appropriate records maintained so the school knows and parents know what individual students are doing. Students are not permitted to leave the workrooms except with the written permission of the instruction assistant in charge. A good reason will support the request for an excuse and permission granted only to those students who do not abuse the privilege. A student may need to work in

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[1] David W. Beggs and James L. Olivero, "A Place Out of Space . . . The Independent Study Carrel . . . and a Variety of Studies in Lakeview High School, Decatur, Illinois," NASSP Bulletin, 46, January, 1962, p. 197; Carl H. Peterson, Effective Team Teaching: The Easton Area High School Program, West Nyack, New York: Parker Publishing Company, Inc., 1966, pp. 101-2.

another workroom, the library, or at some center outside the school. The atmosphere of the workroom needs to be relaxed yet businesslike. Conferences with other students are permitted with the understanding that this is a privilege to be removed if abused. In other words, the atmosphere of the school workroom should be comparable with those in effective offices, shops, laboratories, and public libraries. As indicated earlier, students who cannot work under such conditions will be removed to strictly supervised and disciplined conventional study rooms.[1]

Physical Facilities

Facilities for independent study have been treated extensively in the literature. Trump presents plans for an entire school in which he provides for a library, resource centers, listening rooms, viewing rooms, conference rooms, teaching machine rooms, individual study carrels, laboratory spaces, and a master transmitting room for audio-visual materials.[2]

Many writers comment on the best means of providing student access to both printed and non-printed materials. They agree that these materials must include not only the usual kinds of books and periodicals found in good libraries but should also include tapes, records, films, filmstrips, video-tapes, and various combinations of all these materials.

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[1] Trump, op. cit., p. 5.

[2] Trump and Baynham, op. cit., pp. 2-9.

Although all the available literature agrees that all of these materials must be provided in generous quantities and must be easily accessible to students, writers disagree as to the kinds of physical facilities which will lend themselves best to the accomplishment of these objectives.

Trump, and others, advocate that a central library should house less frequently used materials, while more commonly used materials should be housed in separate resource centers, organized basically by curricular departments.[1] The number of centers in a school should be appropriate to the size of the school.

But Ellsworth and Wagener, in The School Library, make a strong plea for an expanded central library, which would include all of the materials and services provided in separate resource centers.[2]

In a school of 1,200 Trump would provide independent study facilities as follows:

A 60-seat library reading room

A 40-seat viewing room

A 40-seat listening room

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[1] Trump, op. cit., p. 4.

[2] Ralph E. Ellsworth and Hobart D. Wagener, The School Library, New York: Educational Facilities Laboratory, 1963, pp. 37-43.

10 conference rooms (capacity of 5 students each)

5 soundproof booths

300 study carrels

Laboratory - Resource Centers

- Health and Physical Education - 3
- Science - 3
- Mathematics - 2
- Language Arts - 1
- Social Studies - 1
- Foreign Language - 1
- Practical Arts - 1
- Fine Arts - 1[1]

Emphasis is given by most writers to the importance of having a variety of laboratory facilities available to students. Trump, as indicated above, would at least partially combine these with the resource centers. He would open to independent study such labs as the industrial arts, home economics and science labs--which are also used for regularly scheduled classes.

A relatively small independent study facility which has received much attention is the individual study carrel.

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[1] Trump and Baynham, op. cit., pp. 39-40.

Shaw and De Bernardis, in separate articles, trace the development of the carrel from a simple partition designed to give some visual privacy to a highly complex electronics center in which students may receive TV, films, tapes, and computer or teaching-machine instruction.[1]

It is one of the simpler carrels which Trump would provide for every four students. He would also provide some of greater sophistication for special programs, as would Beggs and Olivero.[2]

Material and Human Resources

With regard to material resources and human resources necessary for an independent study program, the literature identifies two considerations. The first of these has to do with what resources are needed, and the second with how these resources should be made available.

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[1] Archibald B. Shaw, "Space for Individual Learning," *Overview*, 4, March, 1963, pp. 30-40; Amo De Bernardis, *Planning Schools for New Media*, Portland, Oregon: Portland State College, 1961, p. 14.

[2] Beggs and Olivero, *op. cit.*, pp. 194-6.

Trump, Barchek, and Davis and Tompkins each place emphasis on the importance of having a large quantity of many types of resources to care for the varied interests and abilities of students.[1]

Among the materials they suggest are books, pamphlets, magazines, 16mm films, 8mm film loops, filmstrips, tapes, records, video-tapes, programmed materials, and laboratory materials. Of necessity, the school's resources would also include all hardware necessary to permit ready student use of these materials. It is important to member that, in any secondary school, student interests and abilities encompass a broad range; the entire spectrum of this range needs to be reflected in the available materials.

As to the ready accessibility by students of both material resources and human resources, Trump and Baynham throughout their book develop a plan which not only provides the necessary resources within the school but which houses them in places where all students can get at them easily. This plan includes giving to students sufficient freedom of movement so that they can move from study area to study area as their resource needs change.

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[1] Trump, op. cit., p. 4; Jim Barchek, "Independent Study: Responsibility for Everyone," Salem, Oregon: State Department of Education, Secondary Curriculum Reports, 13, May, 1966, p. 1; Harold S. Davis and Ellsworth Tompkins, How to Organize an Effective Team Teaching Program, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1966, p. 54.

Writers in the field would also make available a wide range of human resources, foremost among which would be teachers, specially qualified aides, specialists from the community, and other students.

Barchek, in referring to the independent study program at Marshall High School, draws attention to the teacher's role:

> Without help easily and continuously available, it seems safe to guess that these projects would never have been completed. Teachers must be willing to expend time in conferences and in organizing in order to achieve a successful program.[1]

Trump places no less emphasis on the role of the teacher, but he would also employ specially selected instruction assistants:

> Supervision of the workrooms should be done by carefully selected, qualified instruction assistants. These assistants are persons who possess at least a college minor in the subject field represented by the workrooms. Three types of persons often are available: housewives interested in part-time work, advanced college students, and retired teachers. These instruction assistants know the subject sufficiently well to be able to answer many questions or to refer a student to his professional teacher when a specialized type of assistance is needed.[2]

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[1] Barchek, op. cit., p. 2.

[2] Trump, op. cit., p. 4.

Attention is also given to the desirability of students making use of the knowledge of specialists in the community as well as the talents of their fellow students.

Attitudes Toward Program

What the literature has to say about this characteristic area is not important to this study. This area was included in the table of anticipated characteristic areas because of its probable value in helping the researcher determine the relative success of the programs studied. Revelation of these attitudes also helped the researcher to discover program aspects not otherwise included in any anticipated characteristic area, yet of sufficient importance to merit comment by participants in the study.

Evaluation

None of the literature tells how to evaluate a school's independent study program.

However, Trump does give some guidelines for evaluating the work of individual students.

> The independent study program recognizes the divergent interests and talents of students not only in relating the program to large and small group work and to educational facilities, but also in evaluating the projects of individual students. A basic

> principle in evaluation is to expect great variation in students' performance in independent study. Teachers constantly need to resist the temptation to compare and contrast independent study results among students. The fundamental goal is individual development in each student according to his own pace, interests, and talents. The question is, how well has a students done in terms of his own interest potential and development at a given stage, not how well has he done in relation to the other students in his group.
>
> Scales based on carefully developed criteria may help to evaluate independent study efforts. The criteria will include such matters as thoroughness, accuracy, originality, relationships to existing knowledge, and effectiveness in reporting. The ingenuity of the professional staff will be challenged in evaluating with Likert-type scales such diverse projects as a model or a new discovery, an exposition, the solution of a problem, a proposed reclassification of data or species, a poem, a musical composition, a new tool, a product, or a survey. A comparison of evaluation scales for several independent study efforts by a given student provides a record of progress during whatever length of period the school decides to use for purposes of reporting to parents.[1]

Trump continues, "The school that places high value on the quality and quantity of independent study as it appraises and reports individual pupil progress will reap the benefits of superior work by students."[2] He stresses the point that young people are very conscious of the values placed by a school on different types of activities. If reports to parents, colleges, and employers are based primarily on scores from examinations then it is these examinations that will receive the primary attention of students.

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[1] *Ibid.*, pp. 5-6.

[2] *Ibid.*, p. 6.

Thelan indicates that there must be checkpoints at regular intervals to help the student assess how far he has come and what steps are needed next, but Thelan does not say how to conduct such evaluations.

Staff In-Service Activities

The literature contains many such statements as these: the teacher will need to learn to give open-ended assignments; the teacher will need to learn to stimulate student interest in independent study activities; or teachers will need to learn new skills. But despite the frequent recognition of the desirability of in-service work with the staff, no indication is given as to how this work might best be done.

Although the literature offers little research-based evidence to support its contentions as to which characteristics of independent study programs offer the greatest prospect for success, the theoretical patterns presented in this chapter will nevertheless serve as a useful basis for comparison with those patterns actually present in the programs studied. These programs will be described in Chapter III, and in Chapter IV they will be compared with the theoretical programs of the literature.

CHAPTER III

A CASE STUDY OF THE PROGRAMS IN EACH OF THE NINE SCHOOLS

This chapter describes the nine programs studied, reserving for Chapter IV comparison of them with the standards established by the literature.

Data from each school are presented in two sections: "The School" and "The Program." Because commitments have been made to protect the anonymity of the schools involved, the schools are not identified by name. Descriptive information about each school includes the general nature of employment in the community, the size of the school system, the educational and vocational activities of its graduates, and the quality rank assigned to each of its independent study program characteristics. All other information which pertains to understanding the program is included in "The Program" sections.

Because of the wide differences among programs, data presented differ somewhat from school to school. Because the intent of this chapter is to describe the major attributes of each program, data have been presented with this in mind, sometimes at the expense of statistical consistency.

The description of each program is presented under thirteen subheadings:

- Program Objectives
- Staff Leadership
- General Organization for Instruction
- Independent Study Program Organization
- Origin of Study Activities
- Motivation Techniques
- Preparation of Students
- Supervision of Students
- Physical Facilities
- Material and Human Resources
- Evaluation
- Staff In-Service Activities
- Other Information

School A

The School

School A, which has an enrollment of about 1,000 sophomores, juniors, and seniors, is the only senior high school in a community which provides most of the services for a wide geographic area. Employment is best described as varied, with some emphasis on mill work and recreation. Many professional people reside in this community.

About 65 of every 100 graduates go on to some kind of advanced education; the remainder divide among a wide variety of occupational areas.

The independent study program, in operation for two years in this school, was originally placed in the successful category, although there was some disagreement about this rating among members of the panel of experts. After the program had been observed for three days, and after the data had been tabulated, the program was reclassified as "less successful." The original classification was first questioned by the researcher during the observation time, as a result of his observation that students spent less time engaged in productive activities than might be expected. On their questionnaires students indicated that they spent an average of 28 per cent of their time "goofing off." The average for successful programs was 17 per cent; for less successful programs, 29 per cent. It should also be noted that composite achievement test scores of the 1964-65 and 1965-66 junior classes fell 8 percentiles and 17 percentiles, respectively, between their freshman and junior years.

The Program

Program Objectives. Students in School A reported that teachers have spent only a limited amount of time (2.79)[1] talking to them about the objectives of the independent study program. These students believe that the ranking objectives of the program are learning to do things on their own (1.31) and having time to do teacher-given assignments (1.45).

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[1] 1.00 = Greatly; 2.00 = Moderately; 3.00 = Little; 4.00 = Not at all -- 2.79 falls between "Moderately" and "Little," lying closer to "Little."

It is interesting to note that although the principal indicated that the objectives of the program were not in writing, 83 per cent of the staff members said they were, and 64 per cent reported that they had their own copy of these objectives.

Table 4 indicates that the teaching staff and principal agree substantially about the amount of understanding of program objectives possessed by the staff but disagree about which objectives have received the greatest emphasis.

Staff Leadership. In the "Leadership" section of the data-collection instrument, teachers were asked to indicate on a "Greatly" to "Not at all" scale the extent to which leadership emanated from various staff members. School A teachers gave relatively fewer "Greatly" responses and relatively fewer "Moderately" responses than were recorded for the study as a whole. For the entire study, the mean number of responses to "Greatly" was 0.85; for School A it was 0.63. To "Moderately," the entire study recorded a mean number of 1.28 responses to School A's 0.95.

TABLE 4

COMPARISON OF PRINCIPAL AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

	According to	
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	2.07	2.00
To what extent is the staff knowledgeable about them?	2.17	2.00
To what extent do they apply these in their work?	2.17	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.98	2.00
Develop inquiring mind	1.86	2.00
Develop self-discipline	1.72	1.00
Develop self-initiative	1.71	1.00
Develop resourcefulness	1.81	1.00
Develop self-evaluation skills	2.38	3.00
Develop research skills	1.81	1.00
Provide for individual differences	1.81	1.00
Free the teacher's time	2.52	1.00

Table 5 indicates that teachers find leadership emanating moderately from the principal but little from any other source.

TABLE 5

SOURCES OF PROGRAM LEADERSHIP

Source	Principal	Teachers	Administrators
Principal	1.00	1.98	2.33
Administrative director	2.00	3.26	3.33
Other administrators	4.00	3.26	4.00
Department chairmen	2.00	3.05	2.33
A specific teacher	4.00	3.35	4.00
A specific group of teachers	4.00	3.03	2.33

General Organization for Instruction. This school has twenty-three 18-minute modules each day, programed on a five-day cycle. Large-group and small-group instruction are used but large groups have been limited because of space and staff considerations. The amount of large-group, small-group, and independent study varies greatly within each grade level and among subject areas.

About 30 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or supervision assignment during about 35 per cent of the regular school day.

Independent Study Program Organization. All students are provided with independent study time. Fifty per cent of the students sampled indicated they had about 20 to 30 per cent of their school day unscheduled.[1] Forty-three per cent reported 35 per cent or more of their time unscheduled. Seven per cent indicated less than 20 per cent unscheduled time. The tendency of the more able students to enroll in more classes reduces the I.S. time available to them. However, although the less-able students tend to take fewer classes, these classes are frequently scheduled for longer periods of time, reducing the amount of I.S. time of these students to only slightly more than that of the academically able students.

Independent study privileges are considered a regular part of the school program and are not restricted because of conduct or achievement records. No study halls or detentions are used. However, some classes, most commonly those which attract less-able students, include structured I.S. time.[2] For example, classes in agriculture and conservation, and certain English classes schedule students into a supervised study situation for about one hour each week. Students are released from the supervised situations as teachers become satisfied that they will make effective use of the study time without supervision. Several teachers indicated that they were not satisfied with this structure and would go entirely to unstructured I. S. time the following year. Teachers are given a wide range of freedom to decide how their classes, including the I. S. aspects, will be scheduled.

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[1] The term "unscheduled" is used here to denote time in which the student is not programed into a regularly scheduled class

[2] Structured I.S. is unscheduled time, but the student is required to report to a particular place to engage in specified areas of study.

Two restrictions are placed on student movements during unscheduled time: They must get permission before leaving the campus, and they may not move from one study area to another except between modules. Both of these restrictions, however, seem to exist only on paper, not in practice. Administrators, teachers, and students all indicated that neither policy is enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked in what settings the independent study assignments they gave to students were given. Table 6 indicates heavy use of the traditional-sized classroom and little use of the small group or one-to-one situations.

To determine how I. S. time was spent, students were asked how they spent this time and teachers were asked how they thought students spent it. These responses (Table 7) give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 6

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	24
Small group	12
Traditional size	50
One-to-one	9
Other	4

TABLE 7

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to Students	Percentage of time Spent According to Teachers
Doing specific teacher-given assignments	29	35
Doing general teacher-given assignments (Student makes a choice)	17	13
Studying what the student wants	14	12

Motivation Techniques. Students were asked to what extent certain pressures influenced their choice of I.S. activities.

Table 8 indicates that grades and the student's own interest in the work seemed most significant; pressure from other students, being observed by staff members, and other kinds of teacher pressures were less important.

TABLE 8

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.88
Other teacher pressure	2.76
Own interest in work	1.94
Being observed	3.11
Other students	3.27
Parents	2.45

Teachers indicated that they made a moderate (1.88) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to indicate specific techniques used to stimulate student interest 49 per cent of the staff listed one, 30 per cent listed two, 26 per cent listed three, and 9 per cent listed four. Teachers also reported that they used moderately both grades (2.30) and student self-interest (1.85) as means of stimulating students.

Students (3.18) and teachers (3.28) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

Some I.S. projects are displayed in the school as a means of stimulating students. According to the principal, the student council also devotes some attention to the program. There are four council committees that concern themselves with the study centers, and the student council activities in the area of general conduct bear on independent study.

Preparation of Students. In the opinion of the high school staff, feeder schools do very little to prepare students to participate effectively in the I.S. program. School A's principal reports that no preparation program is provided in the junior high school. School A's teachers find little (3.36) evidence of preparation.

Student leaders from the senior high school visit the junior high school as a part of the entering-student orientation program, and some attention is given to I.S. at a one-day session at the high school for new sophomores.

All students are scheduled into two modules per week of group guidance. These classes are taught by the counselors and some attention is given here to I.S. problems. Teachers devote from a moderate amount to only a little (2.50) class time to discussion of independent study.

No special program is provided for students who are not operating effectively in the regular program, but they are given attention as a regular part of the guidance services. As is the case in most of the schools studied, counselors use grades, test scores, and teacher referrals as means of identifying those students who need help. They then counsel individually with them in an effort to help the students improve their performance.

Students report that little (2.79) class time has been devoted to discussing the I.S. program; but that the teachers, collectively, provide moderate (1.78) help. Students report a moderate (2.24) understanding before they entered the school. They received from moderate to little (2.57) help from other students.

Supervision of Students. Students do not have to be in any particular place during unscheduled time. There is a relaxation area open to them in the cafeteria at all times, and the climate is such that the school grounds are usable most of the time.

Supervision in study areas other than the library is provided by aides, but in the library by the librarian. The principal stated that although the aides are always present in the study areas they spend little time actually supervising students. Their presence alone seems adequate to maintain discipline.

It is interesting to note the discrepancy that appears between the principal's view and that of the students and teachers as to who is doing the supervising. This may be caused by a difference in the wording of the questions asked the three groups. The principal was asked who supervised students in study areas (underline added). Students were asked who supervised them during their I.S. time, and teachers were asked what percentage of their non-instructional time was used to supervise students engaged in independent study.

Teachers estimated that 21 per cent of their time was used in supervision. A comparison of the responses of the principal with those of the students appears in Table 9.

TABLE 9

SOURCE OF STUDENT SUPERVISION DURING INDEPENDENT STUDY

Source	According to Principal	According to Students
Teachers	4.00	2.76
Other adults	1.00	3.09
Other students	4.00	3.23

Observation of the program provided another possible explanation of this response discrepancy between principal and students.

During the three days of observation, very few students were seen in the study centers supervised by aides. The library, which is supervised by the librarian (a teacher), was heavily used; hence many more students were being supervised by a teacher than by aides. Too, much of the teacher supervision time is provided by instructors of laboratory courses who monitor open labs for I. S. students.

Physical Facilities. School A was originally designed for a traditional program but has recently added a wing which contains facilities for large groups, small groups, and independent study.

The most frequently utilized center for independent study is the library, which seats 110 students in groups at tables. The library, which receives heavy use, is open to students at any time during the school day, and before and after school. Both the collections and the facilities are traditional.[1]

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[1] Traditional collections consist almost entirely of books with a limited choice of magazines and pamphlets. Traditional facilities are characterized by shelves around the perimeter of the room with all seating at tables in the center of the room and little provision, if any, for audio visual resources.

Four study centers are available to students but appear to get very light use. One of these is located immediately adjacent to the library and is accessible from it. It consists of 48 simple study carrels, seven conference rooms which will each seat about five students, and 10 listening booths. The listening booths are connected to a tape console which will handle 11 tapes at one time. All AV equipment is housed in this area, administered by the aide in charge, and available for student use.

A social studies center, which seats 32 at tables, is open to students at any time but appears to receive very little use. This may be because of the limited number of resources available in the room -- only a few textbooks, periodicals, and paperbacks.

Two other small study centers are available: A guidance center seats about 20 and contains both guidance and English materials. A foreign language study center, which seats 10, contains but a few periodicals.

Adequate laboratory facilities are available in most laboratory instruction areas and, with a few exceptions, are available to I. S. students any time there is space available, which seems to be most of the time. The foreign language and agriculture labs are open less than the others because of a lack of available supervision. The metal, art, and chemistry labs appear to get very heavy use, but by a limited number of students.

The cafeteria area, which is open to students at any time during the regular school day, gets very heavy use. Seating about 275, it is a dreary, austere, noisy room equipped with tables and benches. The use the students make of this facility was identified as a problem by both teachers and administrators.

Offices are provided for 34 teachers, leaving 12 without such facilities. These offices are scattered throughout the building and do not appear to be arranged to encourage student visitation. In addition, teachers have access to a small production room adjacent to the main school office.

Material and Human Resources. Printed materials in the library are adequate,[1] probably approaching excellent for the academically able student. However, the study centers are only minimally equipped, primarily with texts and formal reference books.

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[1] Subjective evaluations about the quantity and quality of library and resource center materials were made by the researcher. Data upon which these evaluations are based were collected during interviews with librarians, AV directors, and those staff members responsible for resource centers. Extensive observations were also made by the researcher. The guidelines for these interviews and observations were strongly influenced by Evaluative Criteria (Washington D. C.: Cooperative Study of Secondary School Standards, 1960), and consultation with several local librarians.

This is probably a factor in the light student use of them. AV materials are also limited. There are about 85 filmstrips, 75 records, a few slides and a small collection of tapes. Probably the greatest variety is available on tapes. The tape collection includes both commercially prepared and teacher prepared items. Teacher prepared aids include lectures, drills, and study guides.

Those materials which the school has seem to be readily available to students. The study center adjoining the library has a 10-listening-station tape console which appears to function well. Students may get AV materials and equipment by asking the aide-in-charge, and listening and viewing facilities are convenient. Printed materials may be checked out from either the library or the study centers. With the exception of one record player - film strip viewer combination which is located in the guidance study center, all AV equipment is located in the study center adjoining the library.

Materials for the study centers are selected primarily by teachers and department chairmen (see Table 10).

The library and the study centers operate independently of one another with the library controlled by the librarian and the study centers by the department chairmen.

TABLE 10

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	According to Principal
Building administration	2.38	3.00
Department chairmen	1.81	2.00
Teachers	1.47	1.00
Students	2.93	3.00
Librarian	2.74	3.00
Non-certified personnel	3.52	4.00
District personnel	3.28	4.00

It is interesting to note that the effort to encourage student use of out of school resource people is at least as great as that to encourage the use of teachers other than those from whom the student is taking classes. In both cases the effort and level of use appears to be little (Table 11).

Students reported that their own teachers were moderately (1.99) available to them, but that they voluntarily spent little (2.88) time with these teachers. They also indicated that teachers made little (3.18) effort to require them to discuss I.S. work individually.

TABLE 11

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	 Teachers	 Principal
To what extent are students encouraged to use other teachers?	3.13	2.64	2.00
To what extent do they use other teachers?	3.09	2.81	2.00
To what extent are students encouraged to use outside resource people?	2.83	2.51	2.00
To what extent do they use outside resources?	2.92	2.79	2.00

Evaluation. No formal procedure is used to evaluate the effectiveness of the I.S. program. The only objective data is from standardized achievement tests; these have been averaged to determine differences in scores between the traditional program and the current program. The principal indicates that the staff subjectively evaluates the program and that college student returnees report that they are ahead of graduates from traditional programs.

According to the principal a moderate effort is made to evaluate teacher effectiveness in the program, but this is done primarily by the teachers themselves. On the other hand, teachers report that very little effort (3.40) is made to evaluate their effectiveness.

Both teachers and administrators believe that little effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. To the extent that this is done, it is done by counselors. They use grades, test scores, and teacher referrals as a means of identifying certain students who need help.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 12. It is interesting to note that the teachers consistently indicate that little attention has been given to the I. S. program.

TABLE 12

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	According to Principal
Regular faculty meetings	2.81	2.00
Special meetings during the school year	2.65	2.00
Extended contracts	2.81	1.00
Individual conferences	3.17	2.00
University workshops	3.02	3.00
Use of resource people	2.88	3.00
Special assistance to new teachers	3.17	2.00
Printed materials - commercial	2.81	1.00
Printed materials - staff devised	2.69	3.00
Assistance from other teachers	2.50	2.00

Other Information. According to the principal, limited financial resources have been a factor in preventing progress in the I. S. program. For example, materials that the staff would like to make available to students cannot be purchased.

A second factor which may affect some of the data, particularly that dealing with leadership, is the turnover in administrative staff. This staff consists of a principal, a curriculum director, and two deans. The curriculum director and the boys' dean were new to the program this year. The principal was leaving at the end of the year to take another position.

School B

The School

School B, a part of a large-city school system, is located on the edge of the city. It serves a student body of about 2, 200 ninth-graders through twelfth-graders. The median home value in the district is about $7, 500 to $8, 000[1] with the exception of two areas in which the average value is about $12, 000. There are numerous retail sales stores located in the district. Thirty-two and four-tenths per cent of the adults have completed eight years or less of schooling and 4.5 per cent have four or more years of college. Forty and one-tenth per cent of the adults are white-collar workers; for the entire city, 51.5 per cent of the adults work at white-collar jobs.

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[1] From a 1962 study conducted by the staff in preparation for an evaluation by the State Department of Education.

Forty-six and eight-tenths per cent of the school's graduates go on to some kind of advanced education. Of those who don't, most find work in clerical and sales fields.

The independent study program, which has been in operation for three years in this school, was placed in the successful category by the panel of experts.

The Program

Program Objectives. Students in School B reported that teachers have spent from moderately to little time (2.51)[1] talking to them about the objectives of the independent study program. They see the most important objectives as being to learn to do things on their own (1.39), having time to do teacher-given assignments (1.69), and having time to do things in which they are interested (1.80).

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.51 falls just about half way between "Moderately" and "Little."

The administrative director (A. D.) of the program indicates that the objectives are in writing. Ninety per cent of the staff also indicate that they are in writing. Seventy-nine per cent have a copy of the written objectives.

Table 13 indicates that the A. D. and staff are close to agreement on the level of understanding of program objectives possessed by the staff and also on which objectives have received the greatest emphasis.

TABLE 13

COMPARISON OF A. D. AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Question	According to Teachers	A. D.
To what extent have the objectives been discussed with the staff?	1.84	1.00
To what extent is the staff knowledgeable about them?	1.75	1.00
To what extent do they apply these in their work?	2.00	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.55	1.00
Develop inquiring mind	1.67	1.00
Develop self-discipline	1.59	1.00
Develop self-initiative	1.42	1.00
Develop resourcefulness	1.56	1.00
Develop self-evaluation skills	2.16	2.00
Develop research skills	1.85	2.00
Provide for individual differences	1.64	1.00
Free the teacher's time	2.78	1.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For this entire study, the mean number of "Greatly"s in this section was .85 per teacher. At School B is was 1.23. The mean number of "Moderately"s in this section was 1.28, while at School B it was 1.55.

The A. D. surmised that other administrators and members of the independent study committee would identify the principal, the chairman of the I. S. committee, and the committee itself as the source of leadership, while the teachers would identify the I. S. committee. Responses of members of the I. S. committee were not identified, so that portions of this theory cannot be proved. However, Table 14 tends to support the pattern as seen by the A. D.

General Organization for Instruction. This school has 21 modules of 20 minutes each day and is programed on a five-day cycle. Large-group and small-group instruction are used to a great extent. The amount of each varies from ability level to ability level but differs little between grade levels.

About 60 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or supervision assignment during about one-third of the regular school day.

TABLE 14

SOURCES OF PROGRAM LEADERSHIP

Source	According to A. D.	Teachers	Administrators
Principal	1.00	2.14	1.40
A. D.	2.00	2.43	1.80
Other administrators	2.00	3.04	2.00
Department chairmen	2.00	2.55	2.00
A specific teacher (most respondents identified the chairman of the I.S. committee)	1.00	2.71	1.50
A specific group of teachers (almost all respondents identified the I.S. committee)	1.00	1.77	1.40

Independent Study Program Organization. All students are provided with independent study time. Sixty per cent of the sample indicated that they had 35 per cent or more of the school day unscheduled. Thirty-eight per cent reported 20 to 30 per cent of their time unscheduled, while 2 per cent had less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I.S. time available to them. However, although the less-able students tend to take fewer classes, these classes are frequently scheduled for longer periods of time, reducing the amount of I.S. time of these students to only slightly more than that of the academically able students.

Independent study privileges are considered a regular part of the school program and are not restricted because of conduct or achievement records, although such restrictions were being considered for the following year. No study halls, detentions, or structured I. S. are used. Teachers are given substantial freedom to decide how their classes will be scheduled, but this does not include the opportunity to schedule the student's I. S. time.

School B has a rigidily enforced closed campus policy.[1] Students are not permitted to be in the halls or move between study areas except between modules. This is not enforced at all times, but only as the movement or noise interferes with learning activities.

Origin of Study Activities. As a means of determining where student independent study activities originate, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 15 indicates the I. S. activities originate about equally in three of the settings, with about 50 per cent more assignments given in the small-group setting than in any of the others.

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[1] Students are not permitted to leave the school grounds during the school day.

TABLE 15

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	20
Small group	33
Traditional size	21
One-to-one	20
Other	6

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (Table 16) give some indication of the extent to which a student's I.S. time is teacher dominated.

TABLE 16

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to Students	Teachers
Doing specific teacher-given assignments	34	17
Doing general teacher-given assignments (student makes a choice)	19	14
Studying what the student wants	16	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 17 indicates that grades, the student's own interest in the work, and pressure from parents were most important. Pressure from other students and being observed by staff members were least important.

TABLE 17

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.85
Other teacher pressure	2.69
Own interest in work	2.04
Being observed	3.09
Other students	3.21
Parents	2.38

Teachers indicated that they made a moderate (1.88) effort to build into the classroom activities factors which were designed to stimulate student interest in I. S. activities. When asked to list the specific techniques they used to stimulate student interest, 53 per cent of the staff listed only one technique, 37 per cent listed two, 27 per cent listed three, and 15 per cent listed four. Teachers also reported that they relied upon grades (2.32) moderately and student self-interest in the work (1.71) more-than-moderately as means of stimulating students.

Students (2.88) and teachers (3.12) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

As one means of stimulating student interest, I.S. projects are displayed on bulletin boards, in display cases, and in the teachers' office areas. Promotional posters have been produced and displayed by the teacher I.S. committee. The student council has not played an active role in independent study, although the council's activities dealing with conduct and cleanliness have had some effect.

Preparation of Students. In the opinion of the school staff, feeder schools do very little to prepare students to participate effectively in the I.S. program. The A.D. reports that no specific preparation program is provided in the elementary schools. Teachers find little (3.00) evidence of preparation.

Incoming freshmen visit the high school in the spring, and high school staff members meet with parents and students in their elementary buildings. Printed materials describing the high school program are also distributed to students and parents. In the fall, all staff members who have freshmen in their classes spend the first week of school on orientation activities with these freshmen. In addition to this, teachers report that they spend a moderate (2.39) amount of class time throughout the year discussing the I.S. program.

Students who are having difficulty making good use of I.S. are helped through the regular counseling program and through a faculty advisor whom they select. Other teachers hold periodic conferences with their students as needed.

Students report that moderate to little (2.51) class time has been devoted to discussing the I.S. program. They indicate that the teachers, collectively, provide a moderate amount of (1.83) help. The students report little (2.63) understanding of the program before they entered the school. They feel they have received from moderate to little (2.56) help from other students.

Supervision of Students. Students do not have to be in any particular place during unscheduled time, except they must remain on the grounds. There is a relaxation area open to them in the cafeteria at all times, and a large outdoor courtyard is available whenever weather permits.

Supervision in the library is provided by the librarian and two aides. In the resource centers, supervision is handled by para-professionals. The A.D. indicated that although the para-professionals are always present in the resource centers, they spend little time actually supervising students; their presence is usually enough to maintain adequate discipline.

It is interesting to note that once again students identify the primary source of supervision as teachers while the A. D. believes it to be non-certified personnel. As explained earlier in this report (Supervision section under School A), this may be caused by a difference in the wording of the questions. A comparison of the A. D.'s and the student's responses appears in Table 18.

TABLE 18

SOURCE OF STUDENT SUPERVISION DURING I. S.

Source	According to A. D.	 Students
Teachers	3.00	2.38
Other adults	1.00	2.54
Other students	3.00	3.02

Teachers estimated that 22 per cent of their non-instructional time was used for supervision, but much of this was by teachers of laboratory courses who spent most of their non-class time supervising open labs. All teachers are also assigned some supervisory time in the cafeteria.

Physical Facilities. School B was originally designed for a traditional program, but has had some remodeling done to fit it for the modular program.

The traditionally designed library, which seats about 180, all at tables, has a good collection of materials. Open from 7:30 a.m. to 4:30 p.m., it is staffed by a librarian, an associate librarian, and two aides. Immediately adjoining the library, and accessible from it, is the audio visual center, where students may borrow both AV equipment and materials. A reading development lab is also located in the library complex.

These seven resource centers, serving various subject matter interests, are scattered throughout the building: (1) English; (2) social studies; (3) math; (4) science; (5) freshman English and social studies; (6) business education; and (7) home economics, industrial arts, art, physical education, and health. Seating capacities range from 30 to 75. The centers have a variety of AV equipment, including tape recorders, record players, slide projectors, film strip viewers, calculators, adding machines, microfilm readers, and typewriters. Seating in most of these centers is at tables but these centers do include some individual study carrels. In every case the atmosphere is pleasant; although many students use these centers, they remain quiet. The centers are staffed by para-professionals, and are open from 8:00 a.m. to 4:00 p.m.

Very adequate laboratory facilities are available in most laboratory instruction areas. With few exceptions, these are available to I.S.

students whenever there is space available, which seems to be most of the time. With the notable exception of home economics, where special programs utilizing volunteer student aides have been organized, the labs do not appear to get heavy use. The labs are supervised by teachers, with the exception of the foreign language lab, where a technician supervises and operates the console.

An attractive cafeteria, which sells snacks, is open to students at any time. Students are required to be seated, and a teacher is on duty at all times.

A large, terraced courtyard is also available to students, weather permitting. It is attractively landscaped and contains ample lawn area and banks of concrete steps.

Each teacher has an office. Some are located in office complexes, some in study centers, and some in areas by themselves. In most cases they are accessible to students.

In a building which was designed for a traditional program, School B has developed excellent physical facilities for the independent study program.

Material and Human Resources. Printed materials available to students in both the library and the resource centers appear to be excellent. The library collection is very adequate and includes expanded collections of periodicals and vocational materials. The resource centers contain good collections of texts, references, general collections in the appropriate subject areas, and periodicals.

The AV collection in the school appears to be barely adequate but the school has access to the district collection, which is extensive in all areas.

Printed materials are readily accessible to all students and may be checked out either in the library or in the resource centers. Along with AV materials appropriate to a particular subject area, some AV equipment is located in the resource centers. Other equipment and materials are available in the AV center adjoining the library. Equipment and material housed in the school are readily available, but those which must come from the district center require some time to obtain.

According to the teachers, materials for the resource centers are selected by the teachers, department chairmen, and librarian (see Table 19).

The materials for the library and the resource centers are coordinated through the library staff and are all under the administrative supervision of the curriculum vice-principal.

TABLE 19

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	 A. D.
Building administration	2.64	1.00
Department chairmen	1.78	1.00
Teachers	1.64	2.00
Students	2.88	2.00
Librarian	2.22	1.00
Non-certified personnel	2.14	3.00
District personnel	3.14	2.00

Both the teachers and the A. D. report that heavier emphasis has been placed on encouraging students to use other teachers as resources than do the students who report that they have been encouraged more to make use of outside resource people. In either case the actual use level appears to be between moderate and little (see Table 20).

Students reported that their own teachers were moderately (1.90) available to them and that they voluntarily spent from moderate to little (2.77) time with these teachers. The students also indicated that teachers made little (2.88) effort to require them to discuss I.S. work individually.

TABLE 20

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	Teachers	A. D.
To what extent are students encouraged to use other teachers?	2.66	1.90	1.00
To what extent do they use other teachers?	2.98	2.50	2.00
To what extent are students encouraged to use outside resource people?	2.48	2.55	3.00
To what extent do they use outside resources?	2.75	2.86	3.00

Special note should be made of the para-professionals who staff the resource centers. They must have a college major or minor in the subject area handled in the center. Because the centers are so heavily used, the para-professionals have considerable contact with the students.

Evaluation. School B is one of 11 involved with Stanford University in a study designed to assess the effectiveness of their total innovative program, of which independent study is a part. In addition to this, the I.S. committee conducts an evaluation and the administration subjectively evaluates. Standardized achievement test scores are analyzed and the results are as good or better than they were prior to the inception of the program. College performances of School B's graduates are also reviewed. A state college, which draws many of School B's graduates, reports that School B has the lowest percentage of probationary students of any high school in the city system.

According to the A. D., a moderate effort is made to evaluate the teacher effectiveness in the program, but teachers believe that only a little (3.25) effort is made.

Teachers indicate that moderate (2.34) effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. This is done through individual conferences with teachers and through the counseling program.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 21. Responses vary from moderate to little, with staff devised printed materials, assistance from other teachers, and special meetings ranked highest.

Other Information. School B had private foundation financial help for the first three years of the program. It now also has some outside of district financial help for its I. S. committee.

This school is currently offering about 15 enrichment courses in which students may take part during their I. S. time. These courses usually meet for a few modules each week and are often developed around teacher hobbies; for example, oil painting, conversational Greek, knitting, weight lifting, and history of American ideas.

TABLE 21

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	A. D.
Regular faculty meeting	2.51	2.00
Special meetings during the school year	2.38	2.00
Extended contracts	3.35	2.00
Individual conferences	2.94	2.00
University workshops	3.29	2.00
Use of resource people	2.76	2.00
Special assistance to new teachers	2.76	2.00
Printed materials - commercial	2.91	3.00
Printed materials - staff devised	2.31	2.00
Assistance from other teachers	2.32	2.00

School C

The School

School C is a city school in a community which is highly industrialized and is surrounded by agricultural land. It serves a student body of 1,200 seventh-graders through twelfth-graders, although the data in this study were collected only from students and teachers of grades nine through twelve. Adults in the community are primarily operatives or laborers in the industrial plants; less than half are high school graduates.

Thirty-seven per cent of the graduates of School C go on to some form of advanced education. Many of the rest are employed in local plants. The dropout rate in this school, down to 13 per cent for the 1966 graduating class, was in excess of 20 per cent two years ago.

The independent study program, which has been in operation seven years in this school, was placed in the successful category by the panel of experts.

The Program

Program Objectives. Students in School C reported that teachers have spent little time (2.73)[1] talking to them about the objectives of the independent study program. They see the highest ranking objectives as being to learn to do things on their own (1.28), having time to do things they are interested in (1.60), and having time to do teacher-given assignments (1.94).

The administrative director (A. D.) of the program indicates that the objectives are in writing. Eighty-nine per cent of the staff also indicate that they are in writing. Sixty-five per cent have their own copy.

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.73 falls between "Moderately" and "Little" but closer to "Little."

Table 22 indicates that the staff and A. D. do not agree on the extent to which program objectives have been discussed and are understood; nor do they agree as to what these objectives are.

TABLE 22

COMPARISON OF A. D. AND STAFF RESPONSES TO PROGRAM OBJECTIVE QUESTIONS

Question	According to Teachers	 A. D.
To what extent have the objectives been discussed with the staff?	2.20	1.00
To what extent is the staff knowledgeable about them?	2.07	1.00
To what extent do they apply these in their work?	2.29	3.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.87	2.00
Develop inquiring mind	1.67	3.00
Develop self-discipline	1.89	1.00
Develop self-initiative	1.68	1.00
Develop resourcefulness	1.84	2.00
Develop self-evaluation skills	2.33	1.00
Develop research skills	1.87	1.00
Provide for individual differences	1.53	1.00
Free the teacher's time	3.18	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members in the "Leadership" section of the data-collecting instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School C it was 1.20. The mean number of "Moderately"s in this section was 1.28, while at School C it was 2.07.

Table 23 indicates that teachers find leadership emanating moderately from a wide range of sources, with the A. D. ranked highest.

TABLE 23

SOURCES OF PROGRAM LEADERSHIP

Source	According to A. D.	According to Teachers	According to Administrators
Principal	2.00	2.64	1.75
A. D.	1.00	2.07	1.50
Other administrators	1.00	2.85	1.50
Department chairmen	3.00	2.55	2.75
A specific teacher (a majority of respondents named the librarian)	4.00	2.29	4.00
A specific group of teachers (a majority of respondents named the I. S. committee)	1.00	2.19	1.50

General Organization for Instruction. This school has 15 modules of 27 minutes each day and is programed on a five-day cycle. Large-group and small-group instruction are used extensively. The amount of each varies from ability level to ability level but differs little between grade levels.

About 50 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or supervision assignment during about one-quarter of the school day.

Independent Study Program Organization. All students operate on the modular schedule and have some time during which they are not assigned to regular classes. However, only about 60 per cent have independent study time. The other 40 per cent are assigned to study halls. Students must apply for I.S. privileges and be approved by all of their small-group teachers and by the student council. Although the only criterion is conduct, there are many more more-able students than less-able students engaged in independent study. The sample from this school was drawn entirely from among students who have independent study. Fifty per cent of the sample indicated that they had 35 per cent or more of the school day unscheduled. Forty-one per cent reported 20 to 30 per cent of their time unscheduled, while 9 per cent had less than 20 per cent free time. More-able students take more regular classes, reducing the I.S. time available to them. However, because classes for less-able students tend to be scheduled for more modules, I. S. time available to the less-able students only slightly exceeds that for the more-able. About 60 students have made individual arrangements with teachers to do classwork independently, attending only some or perhaps none of the classes. There is also a pilot program involving 10 academically advanced ninth graders in which they attend no classes and spend 100 per cent of their time on I. S.

All I. S. students are assigned to the instructional materials center and are expected to report there unless they have made arrangements with a teacher to use some other facility. Attendance is not taken in the I. M. C., but a student may lose his I. S. privileges if he is asked to account for his whereabouts and can not do so. I. S. privileges are also forfeited because of misconduct but are not lost because of lack of achievement.

School C has a closed campus and students are not permitted to be in the halls during modules. This policy is rigidly enforced.

Teachers are free to structure their own class schedules, including the determination as to where a student will spend his I. S. time.

Origin of Study Activities. As a means of determining where student independent study activities originate, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 24 indicates that 62 per cent of such assignments originate in large groups or small groups and 19 per cent in one-to-one conferences.

TABLE 24

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	32
Small group	30
Traditional size	12
One-to-one	19
Other	11

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (Table 25) give some indication of the extent to which student I. S. time is teacher dominated.

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during

TABLE 25

NATURE OF STUDENT I. S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to Student	Teacher
Doing specific teacher-given assignments	37	38
Doing general teacher-given assignments (student makes a choice)	16	16
Studying what the student wants	16	15

independent study time. Table 26 indicates that grades, and the student's own interest in the work ranked highest, while pressure from other students, and being observed by staff members ranked lowest.

TABLE 26

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.80
Other teacher pressure	2.66
Own interest in work	1.91
Being observed	2.99
Other students	3.22
Parents	2.43

Teachers indicated that they had made a moderate (2.00) effort to build into the classroom activities factors which were designed to stimulate student interest in I.S. activities. When asked to list those specific teachniques which they used to stimulate student interest, 73 per cent of the staff listed one such technique, 49 per cent listed two, 29 per cent listed three, and 20 per cent listed four. The teachers also reported that they relied upon grades from moderately to little (2.40) and upon student self-interest in the work more than moderately (1.76) as means of stimulating student interest.

Students felt that teachers required them to discuss I.S. activities individually with them more than a little (2.72) while teachers believed they required very little (3.38) of this kind of communication.

The A.D. believed that the biggest single factor built into the program to stimulate student interest in productive I.S. work is the fear of losing I.S. privileges. Students enjoy the freedom of I.S. and are careful not to jeopardize it.

Preparation of Students. Since this school services grades seven through twelve, the preparation of students for participation in the I.S. program is unique to this school. The staff has two years to prepare ninth graders for participation. A few seventh graders actually have I.S. time by the middle of their first year. All of them have 18 hours of small-group instruction, under the direction of the librarian, in use of the I. M. C. and of I. S. time. They are then eligible to apply. By the time they are ninth graders they all have seen the program in operation for two years and many have actually been involved in it.

Students who are having difficulty making effective use of I. S. time frequently receive help from their own teachers. The teachers not only have class time in which to make contact, but since all teacher offices are a part of the I. M. C., students and teachers can have frequent contact during I. S. time. Students voluntarily discuss I. S. work moderately (2.26) although teachers require this discussion only to a limited extent (2.72).

Students report that little (2.73) class time is devoted to discussing the I. S. program, but that teachers, collectively, provide moderate to great (1.64) help. They receive a moderate (2.38) amount of help from other students.

Supervision of Students. Students must spend their I. S. time in the library unless they have permission from a teacher to spend it in some other place, perhaps an open lab. Permission is easy to get and students do spend time in such places as open labs. The limitation here is much more one of lack of facilities than it is of restrictive regulations.

Supervision in the I. M. C. is provided by the librarian, and one aide, and incidentally by the teachers. Because teacher offices are located in the I. M. C., teachers frequently walk through and talk to students, although they are not responsible for supervision in this area. All other areas are supervised by teachers.

Table 27 shows that both the A. D. and students believe that supervision comes about equally from teachers and aides.

TABLE 27

SOURCE OF STUDENT SUPERVISION DURING I. S.

Source	According to Students	 A. D.
Teachers	2.57	2.00
Other adults	2.57	2.00
Other students	3.44	4.00

Teachers estimated that 11 per cent of their non-instructional time was used for supervision. Part of this is allocated to open labs and part to noontime cafeteria duty.

Physical Facilities. School C is an older building which appears to be outmoded in almost all respects except for a relatively new instructional materials center. The instructional materials center is a functionally outstanding facility designed specifically for the I. S.

program. It contains 130 study carrels, tables and chairs for 100, 3 conference rooms, the AV center, listening and viewing rooms, teacher offices, and teacher workrooms. Glass partitions provide functional areas, yet maintain openness. It affords adequate privacy for study and is easily supervised. Traffic patterns are such that movement around the library collection is not distracting to students or staff members who are studying. It is the physical heart of the I. S. program.

Although laboratory facilities are extremely limited at School C, most of the labs are open to students on a space available, permission from teacher basis. The laboratories are few in number and are inadequately equipped. Because of these limitations, I. S. students make little use of them. All labs are supervised by teachers.

Each department has an office area located in the I. M. C. Although some teachers must share a desk with another staff member, every teacher has access to a desk. These desks are separated from the student study area but are readily accessible from it, and often are visited by students. There is a workroom area located in the middle of the I. M. C.

Material and Human Resources. The printed materials available to students in the I. M. C. seem to be good in both quantity and quality and include an expanded collection of periodicals and pamphlets. Because of the structure of the I.S. program, the materials get heavy use.

Printed materials are readily accessible to students and may be checked out. The accessibility of all materials to students is enhanced by the instructional materials center organization; they are available from a single location. The AV equipment and materials are also housed here and may be checked out by students.

As might be expected in a program designed around an instructional materials center, teachers see the librarian as having the greatest influence in the selection of materials. But teachers also believe that they, too, as well as the department chairmen, have more-than-moderate influence (see Table 28).

TABLE 28

PERSONNEL WHO SELECT MATERIALS FOR THE INSTRUCTIONAL MATERIALS CENTER

Personnel	According to Teachers	A.D.
Building administration	2.29	3.00
Department chairmen	1.76	1.00
Teachers	1.72	1.00
Students	2.93	4.00
Librarian	1.42	1.00
Non-certified personnel	3.47	4.00
District personnel	3.13	3.00

Students and teachers closely agree on the amount of encouragement given students to use other teachers and outside resource people. And they agree, too, on the actual use which students do make of resource people. The actual use level is between moderately and little (see Table 29).

TABLE 29

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	According to Teachers	A. D.
To what extent are students encouraged to use other teachers?	2.39	2.25	1.00
To what extent do they use other teachers?	2.74	2.82	1.00
To what extent are students encouraged to use outside resource people?	2.61	2.60	4.00
To what extent do they use outside resources?	2.86	2.96	4.00

Students reported that their own teachers were from moderately to greatly (1.69) available to them and that they voluntarily spent a moderate (2.26) amount of time with these teachers.

Students also indicated that teachers made more than a little (2.72) effort to require them to discuss I.S. work individually.

Evaluation. No formal procedure is used to evaluate the effectiveness of the I. S. program. The only objective data is from standardized achievement tests. Student scores on these have improved slightly. The A. D. indicates that the staff subjectively evaluates the program and that college student returnees report that, in adjusting to the demands of college, they are ahead of graduates from traditional programs.

Both the A. D. and the teachers report that little effort is made to evaluate teacher effectiveness in the I. S. program.

The A. D. believes that a great effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. He indicates that this is done by teachers in the small groups and on a one-to-one basis in the I. M. C. Teachers believe that from moderate to little (2.64) effort is made to give students this kind of help.

Staff In-Service Activities. The extent to which various in-service activities have been used may be seen in Table 30. Responses vary from moderately to little, with assistance from other teachers, special meetings, and staff-devised written materials ranked highest.

TABLE 30

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	According to A. D.
Regular faculty meetings	2.60	2.00
Special meetings during the school year	2.22	3.00
Extended contracts	3.27	3.00
Individual conferences	2.76	2.00
University workshops	2.42	1.00
Use of resource people	2.53	3.00
Special assistance to new teachers	2.51	2.00
Printed materials - commercial	2.55	2.00
Printed materials - staff devised	2.23	3.00
Assistance from other teachers	2.14	2.00

Other Information. School C has operated this program with less financial support than is found for similar programs in most school districts. Low salaries and the resulting staff turnover have handicapped the development of the program, according to the administrative staff. The level of financial support is also apparent in all physical facilities except the I. M. C.

School D

The School

School D has an enrollment of about 1,200 sophomores, juniors, and seniors and is one of two high schools in a community which is industrial and agricultural. About 70 per cent of the parents are industrial workers or managers, with more than an average number of managerial level occupations represented. The remaining 30 per cent are service and agricultural workers.

Seventy-one per cent of the students reported they planned to attend college; and 9 per cent, some other kind of advanced training. Fifteen per cent planned on finding immediate employment.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School D reported that teachers have spent little time (3.07)[1] talking to them about the objectives of the independent study program. They see the highest ranking objectives to be learning to do things on their own (1.42), having time to do teacher-given assignments (1.75), and having time to do things in which they are interested (1.89).

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 3.07 falls almost on "Little."

The principal and 61 per cent of the staff indicate that the objectives are not available in writing.

Table 31 indicates that the principal and staff are in near agreement on the level of understanding of program objectives possessed by the staff. They also agree as to which objectives have received the greatest emphasis.

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale.

For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School D it was .57. The mean number of "Moderately"s in this section was 1.28, while at School D it was .86.

TABLE 31

COMPARISON OF PRINCIPAL AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Questions	According to Teachers	According to Principal
To what extent have the objectives been discussed with the staff?	2.59	2.00
To what extent is the staff knowledgeable about them?	2.48	2.00
To what extent do they apply these in their work?	2.70	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.11	3.00
Develop inquiring mind	1.89	2.00
Develop self-discipline	1.68	2.00
Develop self-initiative	1.57	2.00
Develop resourcefulness	1.89	3.00
Develop self-evaluation skills	2.25	3.00
Develop research skills	1.89	2.00
Provide for individual differences	1.75	2.00
Free the teacher's time	2.57	4.00

Table 32 indicates that while teachers found department chairmen to provide the most leadership, the extent of this leadership was less-than-moderate.

TABLE 32

SOURCES OF PROGRAM LEADERSHIP

Source	According to Principal	According to Teachers
Principal	3.00	2.68
A. D.	4.00	3.30
Other administrators	3.00	3.41
Department chairmen	1.00	2.39
A specific teacher	4.00	3.50
A specific group of teachers	4.00	3.63

General Organization for Instruction. This school has 14 modules of 25 minutes each per day and is scheduled on a five-day cycle. Large-group and small-group instruction are used. The program is organized for team teaching, but little team teaching was seen during the observation.

Independent Study Program Organization. All students operate on a modular schedule and have time when they are not assigned to a traditional instructional situation. With the exception of the three modules per week for which each student is assigned to the library, most of this non-instructional time is rescheduled. That is, the student is assigned to a teacher (most often other than one of his class teachers) and to a room.

The student's own teachers may assign him to I. S. time in one of the two study centers in lieu of some of his rescheduled time. According to the principal, about 30 per cent of the sophomores and 50 per cent of the juniors and seniors spent I. S. time in the study centers. However, when student schedules were reviewed by the researcher, it appeared that a much smaller percentage than indicated by the principal actually had I. S. time.

Additional evidence became apparent when the researcher attempted to identify the student sample, which was to consist of 12 above-average, 12 below-average, and 24 average students at each grade level. No more than four low-ability students were found at any grade level, and at the sophomore and junior levels the average sample could not be completed.

Fifty-four per cent of the sample indicated that they had less than 20 per cent of the school day unscheduled. Thirty-four per cent reported 20 to 30 per cent unscheduled, while 12 per cent had 35 per cent or more free time.

According to the principal the criteria for assignment to independent study are desire and a sense of responsibility. I. S. privileges are revoked for breaches of discipline but not for achievement failings. All I. S. students are assigned to study centers where roll is taken. They may sign out to use other facilities in the school.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 33 indicates that more assignments are given in traditional settings than in any other.

TABLE 33

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	13
Small group	20
Traditional size	42
One-to-one	16
Other	9

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses in Table 34 give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 34

NATURE OF STUDENT I. S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to Students	Teachers
Doing specific teacher-given assignments	33	42
Doing general teacher-given assignments (student makes a choice)	18	20
Studying what the student wants	18	16

Motivation Techniques. Students were asked to what extent certain pressures influenced their choice of activities during independent study time.

Table 35 indicates that the student's own interest and grades ranked highest.

TABLE 35

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	2.09
Other teacher pressure	2.96
Own interest in work	1.84
Being observed	3.08
Other students	3.52
Parents	3.00

Teachers indicated that they made a moderate (1.97) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When the staff was asked to list specific techniques used to stimulate student interest, 40 per cent listed one such technique, 28 per cent listed two, 16 per cent listed three, and 5 per cent listed four. The teachers reported that they relied upon grades from moderately to little (2.67) and upon student self-interest moderately (1.80) as means of stimulating student interest.

Students (3.64) and teachers (3.44) agreed that very little effort was made to require individual discussion with teachers concerning I.S. activities.

The principal reported that the honor of qualifying for I.S., and the desirable study atmosphere in the study centers were factors built into the program to encourage good student use of I.S. time.

Preparation of Students. In the opinion of the high school staff, feeder schools do very little to prepare students to participate effectively in the I.S. program. The principal reported that no preparation program is provided in the junior highs. Teachers also found very little (3.21) evidence of preparation.

The principal and counselors visit the students in the junior highs, and a one-day orientation program for incoming sophomores is conducted at the high school. Teachers devote little (2.76) class time to discussing independent study.

No special program is provided for students who are not operating effectively in the program. They can get some help through the regular counseling program.

Students report that little (3.07) class time has been devoted to discussing the I.S. program, but that teachers, collectively, do provide moderate (1.87) help. Students had from moderate to little (2.69) understanding of the program before they entered the school and they received from moderate to little (2.58) help from other students.

Supervision of Students. Students engaged in I.S. must first report to a specific study center and then may sign out to the library or some other facility in the building. Supervision in the study centers is provided by a full time aide in each and by teachers who occupy an office in the center. All other areas are supervised by teachers.

Table 36 indicates that the students find the most supervision coming from teachers, while the principal believes that aides play the biggest role.

TABLE 36

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to Principal	According to Students
Teachers	3.00	2.51
Other adults	2.00	2.76
Other students	4.00	3.79

Teachers estimated that 14 per cent of their non-instructional time was used for supervision.

Physical Facilities. School D was designed and built to house a team-teaching program which includes large-group and small-group instruction.

The two study centers are the primary facilities for I.S. The science-math center seats 24 students, eight at carrels and the remainder at tables. Its resources are limited to some periodicals and a few texts. The humanities center seats 32, five at carrels and the rest at tables. Its resources are also limited to some periodicals and a few texts. Few students were seen in either center during three days of observation.

The library is an attractive facility which seats about 105. It has 32 individual carrels and two small conference rooms. Since all students (1,200) are assigned three modules per week in the library it is usually crowded.

Adequate laboratory facilities are available in most laboratory instruction areas but receive little use in the independent study program. They may be used with permission of the teachers involved but are usually full because of classes or reschedule time.

Material and Human Resources. Printed materials in the library are less-than-adequate by national standards but are considered adequate in that region, according to the librarian. The periodical collection is probably the most adequate aspect of the library. The printed materials collection in the study centers is very small. The AV materials collection is very small and is not used in the I.S. program.

Materials for the study centers are selected primarily by the librarian and teachers (see Table 37).

Apparently little effort is made to encourage students to use, in connection with their I.S. work, other teachers or outside resource people (see Table 38).

Students report that their own teachers were less-than-moderately (2.26) available to them and that students voluntarily spent little (2.73) time with their teachers. Students also reported that teachers made very little (3.64) effort to require them to discuss I.S. work individually.

TABLE 37

PERSONNEL WHO SELECT MATERIALS FOR THE INSTRUCTIONAL MATERIALS CENTER

Personnel	According to	
	Teachers	Principal
Building administration	2.67	2.00
Department chairmen	2.22	1.00
Teachers	1.93	1.00
Students	3.12	4.00
Librarian	1.82	1.00
Non-certified personnel	3.76	4.00
District personnel	3.28	3.00

TABLE 38

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Question	According to		
	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	3.19	2.49	3.00
To what extent do they use other teachers?	3.14	2.81	3.00
To what extent are students encouraged to use outside resource people?	3.48	2.65	3.00
To what extent do they use outside resources?	3.48	2.74	3.00

Evaluation. No formal procedure is used to evaluate the effectiveness of the I. S. program. College student returnees report that they have made an easier adjustment to college than have graduates of traditional programs. No evaluation of test results has been conducted. Little or no effort is made to evaluate teacher effectiveness in the I. S. program.

Teachers and the principal agree that little effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. To the extent that this is done, it is done by teachers in their normal contact with students and by counselors in the regular guidance program.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 39.

Other Information. Staff turnover, apparently primarily because of low salaries, has handicapped the program. For the year in which the data for this study were collected, 23 teachers of a staff of 64 were new to the school. The average salary was $4, 860, which ranked the district 22nd out of 23 districts in its classification in the state. The annual per pupil expenditure was $321.

The administrative personnel for a student body of 1, 200 consists of a vice-principal, who taught one class per day, and a principal.

TABLE 39

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	According to Principal
Regular faculty meetings	3.00	3.00
Special meetings during the school year	2.86	4.00
Extended contracts	3.77	4.00
Individual conferences	3.02	3.00
University workshops	3.44	3.00
Use of resource people	2.77	3.00
Special assistance to new teachers	3.09	3.00
Printed materials - commercial	3.05	3.00
Printed materials - staff devised	3.09	3.00
Assistance from other teachers	2.93	3.00

School E

The School

School E has an enrollment of about 2,600 students and is one of five high schools in a high school district. Employment of the residents is primarily in nearby aircraft plants and other technical industries. Many of the parents hold professional or semi-professional positions and most have attended college.

No follow-up data on school graduates were available, but a review of the aptitude test scores of students indicated a distribution curve which was skewed to the upper levels.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School E reported that teachers have spent little time (2.89)[1] talking to them about the objectives of the independent study program. They see the major objective as having time to do teacher-given assignments (1.59).

The administrative director (A. D.) and 90 per cent of the staff indicated that the objectives are not in writing.

The A. D. believes that much more explanation and understanding of the objectives has been obtained by the staff than does the staff (Table 40).

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.89 fails between "Moderately" and "Little" but closer to "Little".

TABLE 40

COMPARISON OF A. D. AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Question	According to	
	Teachers	A. D.
To what extent have the objectives been discussed with the staff?	2.65	1.00
To what extent is the staff knowledgeable about them?	2.47	1.00
To what extent do they apply these in their work?	2.45	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.29	2.00
Develop inquiring mind	2.06	1.00
Develop self-discipline	1.96	1.00
Develop self-initiative	1.93	1.00
Develop resourcefulness	2.13	2.00
Develop self-evaluation skills	2.81	2.00
Develop research skills	2.16	2.00
Provide for individual differences	2.13	1.00
Free the teacher's time	2.86	1.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School E it was .47. The mean number of "Moderately"s in this section was 1.28, while at School E it was 1.0.

Table 41 indicates that teachers see less leadership being exercised than do the A. D. or the other administrators.

TABLE 41

SOURCES OF PROGRAM LEADERSHIP

Source	According to		
	A. D.	Teachers	Administrators
Principal	1.00	2.53	1.20
A. D.	4.00	3.76	3.80
Other administrators	2.00	3.49	1.80
Department chairmen	2.00	2.59	1.80
A specific teacher	4.00	3.41	2.80
A specific group of teachers	4.00	3.29	2.60

General Organization for Instruction. This school has 13 modules of 25 minutes each, plus 60 minutes of passing time each day and is programed on a two-day cycle. Students are assigned in traditional class sizes of about 30. Teachers then do their own placing of students in large groups and small groups to the extent that this is possible within the mechanics of the teacher's schedule. As a result, little large-group or small-group instruction is used.

Eight teachers from a staff of 117 are involved in team teaching. The typical teacher has no class or supervision assignment during about 19 per cent of the school day.

Independent Study Program Organization. All students are provided with independent study time. Forty-nine per cent of the sample indicated that they had about 20 to 30 per cent of their school day unscheduled. Twenty-eight per cent reported 35 per cent or more of their time unscheduled, while 23 per cent indicated less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I. S. time available to them.

Some effort is made to avoid giving students large blocks of time, such as a half-day, for independent study.

I. S. time is not restricted because of achievement record, but it is temporarily restricted for breaches of discipline. A teacher-supervised detention center is maintained and students are punished by having to spend their I. S. time there, usually for a period of three or four weeks.

Students do not have to report to a particular place during I. S., and they can move between study areas at any time as long as they can do so without going into the halls of the main building. Students may not leave the school grounds without permission.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 42 indicates heavy use of the traditional-sized classroom and little use of the small group.

TABLE 42

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	20
Small group	9
Traditional size	51
One-to-one	14
Other	6

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses in Table 43 give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 43

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to Students	Teachers
Doing specific teacher-given assignments	30	33
Doing general teacher-given assignments (Student makes a choice)	16	11
Studying what the student wants	14	10

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 44 indicates that grades, and the student's own interest in his work were most important. Pressure from other students was least important.

TABLE 44

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	2.05
Other teacher pressure	2.93
Own interest in work	2.27
Being observed	3.27
Other students	3.46
Parents	2.57

Teachers indicated that they made a moderate (2.19) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate interest, 54 per cent of the teachers listed one such technique, 41 per cent listed two, 31 per cent listed three, and 9 per cent listed four. The teachers also reported that they relied upon grades less than moderately (2.41) and student self-interest moderately (2.01) as means of stimulating student interest.

Students (3.39) and teachers (3.13) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do very little to prepare students to participate effectively in the I.S. program. The A.D. reports that no preparation program is provided in the elementary schools and teachers agree there is very little (3.54) evidence of preparation.

Entering freshmen have a half-day orientation program to the high school at which independent study is referred to briefly. No other orientation program is provided.

No special program, other than detention for disciplinary problems, is provided for students who are not operating effectively in the program, but such students are given some attention as a regular part of the guidance program.

Students report that little (2.89) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide a moderate (2.01) amount of help. Students had less than a moderate (2.45) understanding of the I.S. program before they entered the school and they received little (2.77) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the student union part of the time. The weather in the region of School E is such that the school grounds are available much of the time.

Supervision in all areas is provided by teachers. They are assigned to study centers and to the grounds.

Since aides are not used in this school, the responses in Table 45, which show the teachers as the primary source of supervision, are as expected.

Teachers extimated that 16 per cent of their non-instructional time was used for supervision.

Physical Facilities. The first section of School E was opened in 1962; 11 additions have been made since that time. All of the building, except a science complex is of traditional design.

TABLE 45

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to A.D.	 Students
Teachers	1.00	2.18
Other adults	4.00	3.44
Other students	3.00	3.30

The library was constructed in 1938 and seats about 65 students at tables. It receives heavy use and is open to students from 7:15 a.m. to 3:30 p.m. Both the facility and the collection are traditional.

There are three study centers, housed in classrooms which have been carpeted. The English center is a double room and seats 70 at standard tablet-arm chairs. The math and social studies centers each seat about 35 at tablet-arm chairs. These centers are open to students at all times during the school day.

The cafeteria, open to students for I.S. at all times except during lunch periods, is heavily used. Seating arrangement is tables and benches. It contains no other equipment or resources.

A science center, located in the science wing, seats about 30 students at tables. It is close to laboratory facilities and science teacher offices.

Adequate laboratory facilities exist in most laboratory instruction areas but receive little use in the I. S. program because of scheduling problems and because most teachers have not accepted the concept of open labs. Those few labs which are available to I. S. students appear to get good use.

The student union is open to students before school, after school, during lunch periods, and during the last module of the day. It is an old, run-down room equipped with a few benches and a snack bar. There is also a fenced-in lawn area which is available to I. S. students, weather permitting.

English and social-studies teachers have departmental offices. Science teachers share offices in the science wing. Most teachers retain classrooms which are basically for their own use.

Material and Human Resources. The collection of printed materials in the library appears to be adequate but is housed in a facility which seats only 65 students out of a student body of 2, 635. The study centers are inadequately stocked with study materials. The cafeteria, which is the largest center, has none. The English, math, and social studies centers have only a very few texts, paperbacks, and reference books. The science center has a collection of about 300 volumes of general reference and about 10 periodical titles.

Generally, AV materials are not used in connection with the I.S. program. The foreign language department does use a few tapes. All AV equipment and materials are handled through the various departments, with no provision made for a central facility where AV equipment or materials can be obtained by students.

Those printed materials which the school has may be checked out by students either in the library or in the study centers.

Teachers believe that materials for the study centers are selected primarily by department chairmen and themselves (see Table 46).

TABLE 46

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	According to A.D.
Building administration	2.75	2.00
Department chairmen	1.79	1.00
Teachers	1.88	1.00
Students	3.07	1.00
Librarian	2.28	1.00
Non-certified personnel	3.49	4.00
District personnel	2.95	3.00

The library and the study centers operate independently of one another. The library is controlled by the librarian and the study centers by the department chairmen. Most of the suitable materials for independent study are in the library, while most of the space for students is in the centers.

Table 47 indicates that students and teachers agree that little effort has been made to encourage students to use teachers from whom they are not taking classes as resource people. Students and teachers also agree that students make little use of them. The A. D. stated that great encouragement was given students to use other teachers, and that because of the teachers being on duty in the study centers, students did make great use of them as resource people.

TABLE 47

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	 Teachers	 A. D.
To what extent are students encouraged to use other teachers ?	2.84	2.70	1.00
To what extent do they use other teachers ?	3.18	2.84	1.00
To what extent are students encouraged to use outside resource people ?	2.93	2.89	3.00
To what extent do they use outside resources ?	2.92	3.00	3.00

Students reported that their own teachers were less-than-moderately (2.23) available to them and that they voluntarily spent little (2.94) time with these teachers. They also indicated that teachers made very little (3.39) effort to require them to discuss I.S. work individually.

Evaluation. According to the A.D., no formal procedure is used to evaluate the effectiveness of the I.S. program. Neither a follow-up of college students nor any work with achievement test scores has been done. However, both student and staff surveys, in which participants were asked to evaluate the program, have been conducted.

The A.D. reports that a little effort is made to evaluate teacher effectiveness in the program by subjective administrative appraisal, but teachers believe that very little (3.51) evaluation of the staff is conducted.

Both teachers and administrators believe that little effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. To the extent that this is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 48.

Teachers indicate that the various activities have been used little or very little.

TABLE 48

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	A. D.
Regular faculty meeting	3.13	3.00
Special meetings during the school year	3.19	3.00
Extended contract	3.35	2.00
Individual conferences	3.24	2.00
University workshops	3.25	4.00
Use of resource people	3.27	4.00
Special assistance to new teachers	3.04	3.00
Printed materials - commercial	3.19	4.00
Printed materials - staff devised	3.07	4.00
Assistance from other teachers	2.75	3.00

Other Information. School E, after experiencing an apparently unpleasant first year with the modular schedule, wanted to give it up. According to the high school administrators, the program was continued because of pressure from the central office administration. Numerous staff members commented on this during the three days of observation.

Another factor which seems to have had an effect on the program has been the changing of personnel. The principal, vice-principal in the same building previously, was new to his job in January, 1965. The current vice-principal came into this position at the same time, moving from a similar position in another school in the district. The AV coordinator was new to his position at the beginning of the school year. The librarian started in the middle of the school year.

Also of some importance is the degree of independence of each department. Each department has, to an unusually high degree, control of its own facilities. There seems to be little communication between departments, and members of each department tend to express an unusual amount of criticism of members of other departments.

School F

The School

School F has a student body of about 1,020 ninth-graders through twelfth-graders. It is one of two high schools in a district which serves a residential and still partially agricultural suburban area. Employment is best described as varied, with some emphasis on semi-professional and professional white-collar occupations. The majority of parents have attended college and most of the others are high school graduates.

About two-thirds of this school's graduates go on to some kind of advanced education, with the remainder finding employment in a wide variety of occupational areas.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School F reported that teachers have spent from moderately to little time (2.52)[1] talking to them about the objectives of the independent study program. They see the highest ranking objectives of the program as learning to do things on their own (1.47) and having time to do teacher-given assignments (1.69).

The principal stated that the objectives of the program were in writing, but only 34 per cent of the staff agreed.

Table 49 indicates that the principal believes that more time has been spent discussing the program objectives with the teachers than does the staff.

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.52 falls just about half way between "Moderately" and "Little".

TABLE 49

COMPARISON OF PRINCIPAL AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Question	According to Teachers	 Principals
To what extent have the objectives been discussed with the staff?	2.48	2.00
To what extent is the staff knowledgeable about them?	2.45	1.00
To what extent do they apply these in their work?	2.33	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.50	2.00
Develop inquiring mind	2.14	1.00
Develop self-discipline	1.97	2.00
Develop self-initiative	1.97	1.00
Develop resourcefulness	2.17	1.00
Develop self-evaluation skills	2.68	2.00
Develop research skills	2.43	1.00
Provide for individual differences	2.03	2.00
Free the teacher's time	2.79	1.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For this entire study the number of "Greatly"s in this section was .85 per teacher. At School F it was .76. The mean number of "Moderately"s in this section was 1.28, while at School F it was 1.41.

Table 50 shows that teachers found leadership emanating to a moderate extent from the department chairmen and from the principal.

TABLE 50

SOURCES OF PROGRAM LEADERSHIP

Source	According to		
	Principal	Teachers	All Adms.
Principal	1.00	2.29	1.00
A. D.	4.00	3.75	4.00
Other administrators	2.00	3.38	3.00
Department chairmen	1.00	2.27	1.33
A specific teacher	2.00	3.16	2.33
A specific group of teachers	4.00	2.65	3.33

General Organization for Instruction. This school has 24 modules of 15 minutes each plus 92 minutes passing time each day and is programed on a five-day cycle. Large-group and small-group instruction are used and the amount of each tends to vary from ability level to ability level but differs little between grade levels.

About 80 per cent of the staff is involved to some extent in team teaching. The typical teacher has no specific class or supervision assignment during about 37 per cent of the regular school day.

Independent Study Program Organization. All students are provided with independent study time. Fifty-nine per cent of the sample indicated that they had 35 per cent or more of their school day unscheduled. Thirty-five per cent reported from 20 to 30 per cent unscheduled while 6 per cent indicated less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I. S. time available to them. However, although the less-able students tend to take fewer classes, these classes are frequently scheduled for longer periods of time, reducing the amount of I. S. time to these students to only slightly more than that of the more-able students.

Independent study privileges are sometimes restricted for disciplinary reasons, poor achievement record, or, occasionally, on parental request. A detention room, supervised by an aide, is maintained. Assignment to this area is usually for a specific period of time. Some effort is made to avoid assigning to students very large blocks of I. S. time.

Students do not have to report to a particular place during I. S. and they can move between study areas at any time as long as their movement does not interfere with classes that are in session. They are expected to remain on campus from the time of their first class until 1:30 p.m. or until their last class is completed. This policy is not rigidly enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 51 indicates that the traditional-size class is most heavily used, but that the small group is also used to a moderate extent.

TABLE 51

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	19
Small group	23
Traditional size	34
One-to-one	12
Other	9

Students were asked how they spent their I.S. time and teachers were asked how they thought that students spent their time. The responses (Table 52) give some indication of the extent to which a student's I.S. time is teacher dominated.

TABLE 52

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to Students	Teachers
Doing specific teacher-given assignments	27	33
Doing general teacher-given assignments (student makes a choice)	15	13
Studying what the student wants	14	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time.

Table 53 indicates that grades were most important. Pressure from other students, and being observed by staff members were least important.

TABLE 53

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.99
Other teacher pressure	2.92
Own interest in work	2.22
Being observed	3.23
Other students	3.33
Parents	2.43

Teachers indicated that they made a moderate (2.10) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 61 per cent of the staff listed one such technique, 35 per cent listed two, and 10 per cent listed three. None listed as many as four. The teachers also reported that they relied upon grades (2.21) and student self-interest (1.85) moderately as means of stimulating student interest.

Students (3.27) and teachers (3.17) agreed that students are only required a little to discuss I.S. activities individually with their teachers.

The student council has spent some time talking about control problems and objectives of the I.S. program, but the council has taken no action. Other than this, and detention for some students, no particular techniques are employed at the program level to stimulate student interest in I.S.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The principal reports that no special preparation is provided in the elementary schools. Teachers agree that there is little (3.21) evidence of preparation.

No pre-school orientation program is provided, but all students have two modules per week of group guidance. In these group sessions, the first part of the school year is spent on orientation. In addition all students spend 10 minutes each day in an administration period, some of which is devoted to discussion of the program.

No special program, other than detention, is provided for students who are not operating effectively in the program, but they are given some help as a regular part of the guidance program.

Students report that from moderate to little (2.52) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide moderate (2.02) help. Students had a moderate (2.19) understanding of the program before they entered the school. They received little (2.70) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the cafeteria. In this area, snacks are served during lunch and for one hour in the morning. The school grounds are also available to the students, and the weather frequently allows use of these grounds.

Supervision in the study areas other than the library is provided by aides. The librarian provides the supervision in the library.

The principal and the students both identify aides as providing the greatest amount of supervision. However, the students believe they get less supervision than the principal thinks they are getting (Table 54).

TABLE 54

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to Principal	 Students
Teachers	3.00	2.82
Other adults	1.00	2.65
Other students	4.00	3.46

Physical Facilities. School F was designed and built two years ago to house a modular program.

The library seats about 72 students at tables and has a collection of about 4,000 volumes for a student body of about 1,020. The carpeted reading room, open from 7:30 a.m. to 4:00 p.m., is pleasant.

A humanities center, which seats about 100 students at tables, is the largest I.S. area. It is a large room, bare but pleasant, open throughout the school day. It is supervised by two half-time aides.

The math-industrial arts study center is in the drafting room. It seats 58 at drafting tables. It is open every afternoon and all day

Friday. Both study centers were quiet inside except for substantial noise entering through open windows which face the interior courtyard of the school.

The cafeteria is one of two relaxation areas open to students at all times. It seats about 250 students. Snacks are served at lunch time and for one hour in the morning.

The school consists of separate buildings arranged in a U formation with the gymnasium at the open end. In the center is a large concrete courtyard available to students at all times. Although it provides a roomy outdoor space for students, the noise which results from its use is a distraction both to classrooms and to I. S. areas which are housed around it.

Lab facilities, which are at least minimally adequate, are available in most laboratory instruction areas, but most of them are available to I.S. students for only a portion of the time. Several are open whenever space is available, even when classes are in session. However, several are not open when classes are in session, and teachers are not available to supervise open labs in some areas. The industrial arts labs, with the exception of the drawing room described earlier, are open while classes are in session, but teachers are not available to supervise these labs.

About two-thirds of the staff have some kind of office space available to them, and the rest have a home-base classroom. A combination faculty room-workroom is also provided for teachers.

Material and Human Resources. Only about half of the printed materials normally found in a school of this size are found in School F's library. This lack probably results from the newness of the school. Both study centers are also very limited in available materials. The humanities center has a limited collection of texts and references. The math-industrial arts center has 15 to 20 reference books in each of the two subject areas. No AV materials are used in connection with the I. S. program.

The materials seem to be readily available to students. There are open shelves in most areas and the checkout procedure seems satisfactory.

Materials for the study centers are selected primarily by teachers and department chairmen (see Table 55).

The library and the study centers operate independently of one another; the library is controlled by the librarian and the study centers by the department chairmen. No effort to coordinate these facilities was apparent.

TABLE 55

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	Principal
Building administration	3.33	2.00
Department chairmen	1.69	1.00
Teachers	1.48	1.00
Students	3.45	3.00
Librarian	2.48	2.00
Non-certified personnel	3.86	4.00
District personnel	3.52	3.00

Table 56 indicates that students make little use either of teachers from whom they are not taking classes or of outside resource people.

Students reported that their own teachers were less than moderately (2.35) available to them and that the students voluntarily spent little (2.92) time with these teachers. Students also indicated that teachers made very little (3.27) effort to require them to discuss I.S. work individually.

Evaluation. Several planned techniques have been used to evaluate the effectiveness of the total school program, including independent study. A control school has been used for comparison of achievement test results. School F's scores are slightly higher than those of the control school, but the difference is not statistically significant. Opinionnaires were developed and administered to both students and staff members.

TABLE 56

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	 Teachers	 Principal
To what extent are students encouraged to use other teachers?	2.95	2.45	2.00
To what extent do they use other teachers?	3.08	2.89	2.00
To what extent are students encouraged to use outside resource people?	3.07	2.86	3.00
To what extent do they use outside resources?	3.03	3.17	3.00

The principal reports that a moderate effort is made by department chairmen and administrators to evaluate teacher effectiveness in the program. Teachers believe that very little (3.52) staff evaluation is conducted.

Both teachers and administrators believe that little effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. To the extent that this is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 57. Although the principal believes most of the activities listed on the questionnaire have been used, the staff reports that little to very little attention has been given to the in-service program.

TABLE 57

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	According to Principal
Regular faculty meeting	3.04	2.00
Special meetings during the school year	3.07	2.00
Extended contracts	3.52	4.00
Individual conferences	3.11	2.00
University workshops	3.59	2.00
Use of resource people	3.23	3.00
Special assistance to new teachers	3.44	2.00
Printed materials - commercial	3.29	3.00
Printed materials - staff devised	3.19	2.00
Assistance from other teachers	2.56	1.00

Other Information. Although the present school building is only two years old, most of the staff has been together for four years. In the two years preceding the opening of this building, they operated the school in makeshift quarters.

Also of some importance in evaluating the data from this school is consideration of the attitude of the staff during the three days during which the data were collected. The night before the arrival of the investigator, the chairman of the school board was recalled after a long, emotional recall campaign. The high school staff and the local professional education association had actively supported the chairman.

School G

The School

School G has an enrollment of about 2,300 sophomores, juniors, and seniors and is one of four high schools in a community which provides most of the public and commercial services for a wide geographic area. The primary sources of employment are tourism and gambling enterprises, supplemented by a military installation and missile and atomic test centers. The educational level of adults follows a bi-modal distribution, with above average percentages both of college-educated and of less-than-high-school-educated adults.

No follow-up data on school graduates was obtained, but a review of the aptitude test scores indicated a distribution approximating the normal curve.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School G reported that teachers have spent little time (2.73)[1] talking to them about the objectives of the independent study program. They see the most important objectives of the program as learning to do things on their own (1.48) and having time to do teacher-given assignments (1.57).

The administrative director (A. D.) said that the objectives were in writing in the handbook, although in rather general form, for the use of both the students and the staff. Seventy per cent of the staff reported that the objectives were in writing; 50 per cent had a copy.

Table 58 indicates that the A. D. and the staff are in almost exact agreement as to the understanding of program objectives and as to the extent to which they apply this knowledge.

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.73 falls between "Moderately" and "Little" but closer to "Little".

TABLE 58

COMPARISON OF A.D. AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Questions	According to	
	Teachers	A.D.
To what extent have the objectives been discussed with the staff?	2.32	1.00
To what extent is the staff knowledgeable about them?	2.00	2.00
To what extent do they apply these in their work?	2.09	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.10	3.00
Develop inquiring mind	1.85	1.00
Develop self-discipline	1.60	2.00
Develop self-initiative	1.59	1.00
Develop resourcefulness	1.85	2.00
Develop self-evaluation skills	2.44	3.00
Develop research skills	2.04	1.00
Provide for individual differences	1.84	2.00
Free the teacher's time	2.50	2.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School G it was

.81. The mean number of "Moderately"s in this section was 1.28, while at School G it was 1.26.

Table 59 indicates that teachers find leadership emanating to a moderate extent from the principal and from department chairmen.

TABLE 59

SOURCES OF PROGRAM LEADERSHIP

Source	According to A.D.	 Teachers	 Administrators
Principal	1.00	2.09	1.00
A.D.	4.00	2.89	3.00
Other administrators	2.00	2.75	3.00
Department chairmen	2.00	2.25	2.00
A specific teacher	2.00	3.29	2.00
A specific group of teachers	4.00	2.82	2.75

Several staff members, during personal interviews, remarked that the administrative staff was very autocratic. Two department chairmen, in separate interviews, commented that recommendations from the chairmen had little effect because the administrators did what they wanted to do anyway. Several teachers volunteered that they had no opportunity to help establish policy for the I.S. program.

General Organization for Instruction. School G employs 14 modules of 25 minutes each, plus 65 minutes passing time each day. The school is programed on a five-day cycle. Large-group and small-group instruction are used. Between grade levels, there is little difference in the amounts of small-group and large-group activity. Less-able students typically have less large-group activity than do the more-able students.

About 15 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or supervision assignment during about 19 per cent of the school day.

Independent Study Program Organization. All students are provided with independent study time. Fifty per cent of the sample indicated that they had 35 per cent or more of their school day unscheduled. Forty-two per cent reported from 20 to 30 per cent of their time unscheduled while 8 per cent indicated less than 20 per cent free time. Because of the tendency of less-able students to take fewer classes than more-able students, they have more I. S. time than more-able students. Some effort is made to avoid giving students large blocks of uninterrupted I. S. time.

I. S. time is not restricted for any reason. No loss of time results from low achievement or misconduct.

Students do not have to report to a particular place during I. S.; they can go anywhere on the campus at any time. Although a closed campus policy exists, this policy is not enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 60 indicates heavy use of the large group and of the traditional-size class, with very little use of the one-to-one situation.

TABLE 60

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	38
Small group	20
Traditional size	33
One-to-one	7
Other	3

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (in Table 61) give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 61

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to Students	Teachers
Doing specific teacher-given assignments	25	29
Doing general teacher-given assignments (student makes a choice)	14	13
Studying what the student wants	16	10

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 62 indicates that grades, the student's own interest in the work, and pressure from parents were most important. Pressure from other students was least important.

TABLE 62

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.91
Other teacher pressure	2.83
Own interest in work	2.14
Being observed	3.13
Other students	3.35
Parents	2.28

Teachers indicated that they made a moderate (1.81) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 53 per cent of the teachers listed one such technique. Forty per cent listed two, 23 per cent listed three, and 13 per cent listed four. The teachers also reported that they relied upon grades (1.95) and student self-interest (2.03) moderately as means of stimulating student interest.

Students (3.38) and teachers (3.26) agreed that students are required only to a very limited extent to discuss I.S. activities individually with their teachers.

The A.D. reported that student I.S. projects were displayed at social studies and science fairs. The student council has had no involvement with the I.S. program.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The A.D. reports that no special preparation program is provided in the junior highs. Teachers agree that there is very little (3.07) evidence of preparation.

Counselors from the high school visit the junior highs, and a one-day orientation program, of which an explanation of the I.S. program is a part, is conducted for incoming sophomores at the high school.

No special program is provided for students who are not operating effectively in the program, but they are given attention as a regular part of the guidance program.

Students report that little (2.73) class time has been devoted to discussing the I. S. program, but that the teachers, collectively, provide moderate (2.05) help. Students had a moderate (2.16) understanding of the I. S. program before they entered the school. They receive little (2.72) help from other students.

Supervision of Students. The only restriction on student movement during independent study is the closed campus policy, which the students and teachers report is not enforced. The cafeteria is open at all times as a relaxation area, as are the school grounds.

Supervision in all study areas is provided by teachers. The cafeteria, which receives heavy use, is unsupervised. A uniformed police officer is employed by the school district and is on duty on the grounds at all times.

Since aides are not used in this school, the responses in Table 63, which show the teachers as the primary source of supervision, are as expected.

Physical Facilities. School G was originally designed for a traditional program, but does have one moveable-wall classroom complex. Two portable classrooms which can handle large groups have also been provided.

TABLE 63

SOURCE OF STUDENT SUPERVISION DURING I. S.

Source	According to A. D.	According to Students
Teachers	1.00	2.58
Other adults	4.00	3.17
Other students	4.00	3.35

The largest single I. S. facility, the library, seats about 155 students at tables. The library receives heavy use and is open to students at any time during the school day. Both the collection and the facilities are traditional.

Four resource centers are available to students -- English, social studies, math and science, and foreign language. The English and the social studies centers each consist of two classrooms with a door between.

In neither center is the second room much used. Both centers are equipped with student desks, tables, and chairs. Each room will seat approximately 35 students. The math-science center, housed in a standard classroom, will also accommodate about 35 students.

The foreign language center will seat about 15. All of the centers resemble other classrooms in the building.

The cafeteria is an outdoor facility, roofed, and open on two sides. It seats about 250 at wooden tables and benches which are badly nicked and gouged. Snacks are available from machines. The area is unsupervised and is noisy and dirty.

A pleasant, grassy, quadrangle is located in the center of the campus. There is no other seating, but the climate permits year-round sitting on the grass. Although it is a large area, very few students were observed using it.

Adequate laboratory facilities exist in most laboratory instruction areas, but receive little use in the I.S. program. Some staff members do not believe in the open-lab principle, and some will not allow I.S. students in the labs while scheduled labs are in session. In a few cases teachers are not available for supervision.

There are several teacher work areas and lounging areas in the building. About 15 staff members have desks in these lounge areas; the remainder use classrooms as home bases.

Material and Human Resources. The collection of printed materials in the library appears to be adequate. The library boasts a superior state history collection. The study centers, other than the foreign language center have good paperback collections, a few periodicals, and a few reference books. The foreign language center has only a few books.

AV materials are used very little in connection with the I. S. program. There is a tape recorder in the social studies center and a record player and tape recorder in the foreign language center. AV materials are handled by each department, rather than through a central source. The foreign language department has a good collection of records and tapes. There are about 200 filmstrips in the school and a few other tapes and records.

Printed materials in the library are on open shelves and may be checked out. The study-center materials, also on open shelves, can not be checked out. Arrangements for use of AV materials are made with individual teachers in the departments, and equipment is available in the AV center.

Teachers report that materials for the study centers are selected primarily by themselves and department chairmen (see Table 64).

The librarian reported that he is assigned the responsibility for the operation of the resource centers; but that the centers, in fact, operate at the direction of the various departments. Time does not permit him to do more than place orders for materials as requested by the departments.

TABLE 64

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	According to A. D.
Building administration	2.65	2.00
Department chairmen	1.87	1.00
Teachers	1.79	2.00
Students	3.08	2.00
Librarian	2.24	1.00
Non-certified personnel	3.66	4.00
District personnel	3.28	4.00

Table 65 indicates that students and teachers agree that students make little use of teachers from whom they are not taking classes. The A. D. stated that great encouragement was given students to make use of these teachers, and that, because the program requires these teachers to be on duty in the study centers, the students did make moderate use of them.

Students reported that their own teachers were moderately (2.15) available to them, but that students voluntarily spent little (2.82) time with these teachers. They also indicated that teachers made very little (3.38) effort to require them to discuss I.S. work individually.

TABLE 65

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	According to Teachers	A. D.
To what extent are students encouraged to use other teachers ?	2.92	2.67	1.00
To what extent do they use other teachers ?	3.03	2.89	2.00
To what extent are students encouraged to use outside resource people ?	3.11	2.79	2.00
To what extent do they use outside resources ?	3.04	2.89	2.00

Evaluation. Students, teachers, and parents have been surveyed about the total program, with some questions directed specifically to the independent study portion of it. No analysis of test scores has been done, and no follow-up with graduates has been done.

The A. D. reports that a moderate effort is made by the administration to evaluate the effectiveness of teachers in the program, but teachers feel that very little (3.42) evaluation is made of the staff.

Teachers believe that little (2.94) effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. To the extent that this is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of in-service activity have been used may be seen in Table 66. The teachers apparently believe that little attention has been given to the I.S. program.

TABLE 66

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	A.D.
Regular faculty meeting	2.83	3.00
Special meetings during the school year	2.64	3.00
Extended contracts	3.52	4.00
Individual conferences	3.26	1.00
University workshops	3.10	2.00
Use of resource people	2.83	2.00
Special assistance to new teachers	3.22	1.00
Printed materials - commercial	2.93	2.00
Printed materials - staff devised	3.00	3.00
Assistance from other teachers	2.62	2.00

Other Information. It was extremely difficult to get accurate information from the administrators in this school. Rather than provide accurate appraisals, these administrators tended to provide answers which might enhance the image of the school in the eyes of the investigator. On several occasions data were received from administrators which were in conflict both with the researcher's observations and interview data from teachers.

This school has also had some financial difficulties. Earlier this year aides were employed, primarily as clerical aides for teachers. Because of financial problems, the aides were released. The school was also told to cut several teachers from its staff because of decreased enrollment. However, the teachers worked out an arrangement whereby regular staff members did all substituting rather than hire outside substitutes. Only by this means was the school able to retain the full teaching staff.

School H

The School

School H is the only high school in a suburban community which is almost entirely residential. It serves a student body of about 830 ninth-graders through twelfth-graders. About 20 per cent of the parents live in homes which are valued at over $20,000, with the remainder living in medium-priced tracts or subdivisions. Nineteen per cent of the fathers have not completed high school; 22 per cent have completed high school; 40 per cent have attended college; an additional 17 per cent are college graduates. Fourteen per cent are professional people; 15 per cent are in business or management; 16 per cent are in the military, and the remainder are divided among a wide range of occupational areas.

Sixty-five per cent of the school's graduates go on to some kind of advanced education. Of those who do not, the most popular occupations are in service, sales, and clerical fields.

The independent study program in this school was placed in the successful category by the panel of experts. It should be noted that although the definitions in this study specify that an independent study program must have been in operation for two years, this one has only been in operation for one year. Last year some experimentation was done with I. S., but the full program was launched only this year. However, since the I. S. program was functioning so well, in the opinion of the researcher, and since the panel of experts placed it in the successful category, it has been included in this study.

The Program

Program Objectives. Students in School H reported that teachers have spent from moderately to little (2.64)[1] time talking to them about the objectives of the independent study program. They see the highest ranking objectives as having time to do teacher-given assignments (1.46) and learning to do things on their own (1.49).

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.64 falls almost half way between "Moderately" and "Little".

The principal and 88 per cent of the staff indicate that the objectives are in writing. Eighty-four per cent of the teachers have their own copy of these objectives.

Table 67 indicates that the principal and staff are quite close to agreement on the identification of the objectives which have received the greatest attention.

TABLE 67

COMPARISON OF PRINCIPAL AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Question	According to	
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	1.52	1.00
To what extent is the staff knowledgeable about them?	1.60	2.00
To what extent do they apply these in their work?	1.76	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.72	2.00
Develop inquiring mind	1.40	2.00
Develop self-discipline	1.32	1.00
Develop self-initiative	1.28	1.00
Develop resourcefulness	1.44	1.00
Develop self-evaluation skills	2.00	2.00
Develop resource skills	1.68	2.00
Provide for individual differences	1.28	1.00
Free the teacher's time	2.38	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School H it was 1.56. The mean number of "Moderately"s was 1.28, while at School H it was 1.12.

Table 68 indicates that teachers find leadership emanating to a great extent from the principal, moderately from the department chairmen and little from any other source.

TABLE 68

SOURCES OF PROGRAM LEADERSHIP

Source	According to Principal	 Teachers
Principal	1.00	1.16
A. D.	4.00	3.11
Other administrators	4.00	2.83
Department chairmen	2.00	2.04
A specific teacher	4.00	2.82
A specific group of teachers	2.00	2.82

General Organization for Instruction. This school was 14 modules of 25 minutes plus 26 minutes passing time each day. It is programed on a five-day cycle. Large-group and small-group instruction are used extensively.

All subjects, where more than one teacher is involved, are organized for team teaching. The typical teacher has no specific class or supervision assignment during about one-half of the regular school day.

Independent Study Program Organization. At the beginning of the year all students were scheduled for some independent study time. About 2 per cent have lost this privilege. Forty-six per cent of the sample indicated that they had 35 per cent or more of their school day unscheduled and 46 per cent more reported that they had between 20 and 30 per cent unscheduled. Eight per cent reported less than 20 per cent free time. The amount of I. S. time each student has differs by grade level, ranging from about 15 per cent for freshmen to 33 per cent for seniors. Some effort is made to avoid scheduling students for large blocks of I. S. time.

There are two kinds of independent study in this school. One of these is unscheduled class time, which 98 per cent of the students have. The other is a contractual arrangement with individual teachers.

For some courses, certain satisfactory performance criteria are established. As soon as a student meets these criteria, he may take another class or contract to do enrichment work in that subject. In some classes students are pretested and, depending on their test scores, released from some portions of the regular class work to do enrichment work. About 40 students are presently involved in this system and the number is increasing as teachers complete preparation of the necessary organization and tests for their classes.

I. S. time is restricted because of either disciplinary or achievement records. The student is usually first referred to the administration by a teacher. The student then signs a contract which spells out achievement and conduct expectations. At that time he is also placed on the "hot list", which means that his achievement, conduct, and attendance will be carefully checked for a specified period of time. If he fails to live up to his contract, in lieu of I. S. time, he is then assigned to "the cooler", a detention supervised by a retired naval officer, until such time as his teachers report that he is performing satisfactorily. At the time of the observations for this study, 32 students were assigned to "the cooler".

Students are allowed to enter and leave study areas only between modules and a closed campus is maintained. Both of these regulations are enforced. Some areas of the halls and grounds are restricted.

This policy, too, is enforced, but not as rigidly as are the other regulations.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the setting in which they gave independent study assignments to students. Table 69 indicates heavy use of the large group and little use of the traditional classroom.

TABLE 69

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	40
Small group	25
Traditional size	14
One-to-one	16
Other	5

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (see Table 70) give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 70

NATURE OF STUDENT I. S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to Students	Teachers
Doing specific teacher-given assignments	28	42
Doing general teacher-given assignments (student makes a choice)	17	15
Studying what the student wants	18	14

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 71 indicates that grades and the student's own interest in the work were most important. Pressure from other students was least important.

TABLE 71

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.79
Other teacher pressure	2.74
Own interest in work	2.08
Being observed	2.92
Other students	3.34
Parents	2.34

Teachers indicated that they made more than a moderate (1.61) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 79 per cent of the teachers listed one such technique, 63 per cent listed two, 38 per cent listed three, and 17 per cent listed four. They also reported that they relied upon grades less than moderately (2.43) and student self-interest more than moderately (1.75) as means of stimulating student interest.

Students (3.06) and teachers (3.04) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

A number of other techniques are used in the school to stimulate I.S. interest. Student work is exhibited. Commendations are given to individual students in the bulletin, over the public address system, and in personal letters from the principal. A scholar of the month is named. The student council conducts assemblies and seminars having to do with the I.S. program and provides feedback to the staff.

Preparation of Students. The one feeder school, in the opinion of the principal, does a moderate job of preparing students to participate effectively in the I.S. program. Staff members see very little (3.83) evidence of this.

A key factor in the orientation of students to the high school program are the counselors. These counselors are regularly assigned to work with all students in grades one through twelve. So counselors who know the high school program are working throughout the school year with students and staff in the feeder school. In addition, a half-day formal orientation is conducted at the high school. This is followed up by home-room and small-group teachers. Printed materials describing the program are distributed to students and parents, and coffees and individual conferences are held with parents. Teachers report that they spend a moderate (2.15) amount of time on the I.S. program.

Students who are not operating effectively in the program are helped by teachers, counselors, and administrators. The formal referral system used in connection with "the cooler" stimulates both teacher and administrator involvement with these students. A group of counselor trainees from a local college are also involved in a special program with these students.

Students report that from moderate to little (2.64) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide more than moderate (1.77) help. The students had less than a moderate (2.38) understanding of the program before they entered the school. They received little (2.75) help from other students.

Supervision of Students. Students do not have to be in any particular place during unscheduled time. They have a semi-relaxation area open to them in the outdoor cafeteria. Although it is not strongly enforced, a policy exists that students should study while there. Supervision is provided by walk-throughs, primarily by administrators.

Supervision in other study areas is provided by both teachers and aides. Para-professionals aid the librarian in the library. Teachers are usually available in the study centers, but here, too, they are supplemented by para-professionals and student teachers.

The principal and the students agree that about equal supervision comes from teachers and aides (see Table 72).

TABLE 72

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to Principal	According to Students
Teachers	2.00	2.70
Other adults	2.00	2.83
Other students	3.00	3.05

Teachers estimated that 20 per cent of their non-instructional time was used for supervision.

Physical Facilities. School H was originally designed for a traditional program and has been adapted to the modular program.

The most frequently utilized center for I.S. is the library, which seats about 130. It has 16 carrels, lounge furniture for about 20, 2 conference rooms, an AV room, an equipment room, and a listening room. It is a quiet, pleasant facility, supervised by the librarian, by a para-professional, and by a secretary.

There are study centers for math, English, social studies and reading, each of which seats from 15 to 20 students at tables or student desks. Each has an outside entrance and a doorway to an adjoining classroom. These centers are small and plain in appearance.

The cafeteria, an unroofed concrete area in front of the gymnasium, is available to students at all times. It seats about 150 at tables.

Adequate laboratory facilities are available in most laboratory instruction areas. Laboratories are conducted as completely open labs during one-third to one-half of the school day. During most other hours labs are open to "reliable" students if there is room, even when classes are in session.

Teachers, for the most part, use classrooms as their offices.

Material and Human Resources. The collection of printed materials in the library appears to be good. Since the inception of the I. S. program, emphasis has been put on increasing the number of periodicals and the number of book titles. Study centers have poor supplies of materials. The exceptions to this are the available periodicals in the social studies center and programed materials in the math center.

All AV materials and equipment are available to students in the library. The collection in the school is minimal, but students and teachers have access to a county AV center, which the librarian reports is used by both. Within the school, all large-group presentations are taped, textbooks are taped for slow readers, and book reviews are recorded on a voicewriter.

All materials are readily accessible to students, both in the library and in the centers. AV listening and viewing facilities are conveniently arranged in the library. It should be noted that School H operates more on an I. M. C. concept than they do on the separate resource center concept. The large, functionally arranged library can satisfy most student I. S. needs. As money becomes available, the school plans to expand the study center collections and encourage their heavier use.

According to the teachers, department chairmen, the librarian, and the teachers all have a strong hand in selecting materials for the study centers (see Table 73).

TABLE 73

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	 Principal
Building administration	2.39	1.00
Department chairmen	1.44	1.00
Teachers	1.54	1.00
Students	2.58	2.00
Librarian	1.72	1.00
Non-certified personnel	3.22	3.00
District personnel	2.82	2.00

Table 74 indicates that teachers and the principal believe that a little more effort has been made to encourage students to use other teachers and outside resource people than do the students.

Students reported that their own teachers were moderately (1.96) available to them and that the students voluntarily spent more than a little (2.73) time with these teachers. The students also indicated that teachers made little (3.06) effort to require them to discuss I.S. work individually.

TABLE 74

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	According to Teachers	According to Principal
To what extent are students encouraged to use other teachers?	2.59	2.16	2.00
To what extent do they use other teachers?	2.89	2.64	2.00
To what extent are students encouraged to use outside resource people?	2.88	2.36	2.00
To what extent do they use outside resources?	2.98	2.75	2.00

Special note needs to be made of the use of the para-professionals in this school. The library para-professional circulates among students to make them more aware of materials that might help them with their current I.S. interests. An ex-teacher-administrator, who himself works as a para-professional, handles the administration of the para-professional program.

Evaluation. A comprehensive evaluation plan is outlined for the total school program, but since the program is in its first full year of operation, much of the planned evaluation has not yet been carried out. The full evaluation will include student, teacher, and parent surveys; analysis of cost, dropout, attendance, and achievement records; and analysis of student performance in relation to specific objectives of the program. Student and teacher surveys have been conducted. Records on the use of materials and facilities have been kept and reviewed. Some feedback has been received from college students who participated in the pilot project last year.

According to the principal, a moderate effort is made to evaluate teacher effectiveness in the program by subjective, administrative evaluation. Teachers believe that less than a moderate (2.42) effort is made to evaluate their effectiveness.

Teachers and the principal feel that a moderate effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. This effort is made by all staff members in both student and teacher initiated conferences. Attention is also given in home-room and small-group situations to aiding students in evaluating their progress.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 75. Responses from teachers indicate that most of the activities listed have been used to a moderate extent.

TABLE 75

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	 Principal
Regular faculty meeting	2.16	2.00
Special meetings during the school year	2.48	2.00
Extended contracts	3.52	4.00
Individual conferences	2.20	2.00
University workshops	2.79	4.00
Use of resource people	2.00	2.00
Special assistance to new teachers	2.32	2.00
Printed materials - commercial	2.48	2.00
Printed materials - staff devised	1.92	1.00
Assistance from other teachers	2.13	2.00

Other Information. One full year was spent in discussing objectives, designing the program, and preparing and testing pilot projects in most aspects of the total program. The program was implemented in full the following year.

Apparently, great effort has been made to offer an individual program to students. The pre-testing and contractual system was mentioned in the "Independent Study Program Organization" section. Twenty-three separate English classes exist, and students are placed on a non-graded basis. Physical education classes are designed for the physically gifted as well as for the less gifted.

School I

The School

School I has an enrollment of about 1,250 ninth-graders through twelfth-graders. It is the only high school in a suburban district. Although it is contained almost entirely within a city limits it is not a part of the school system of that city. The principal rates the community as "definitely upper-middle class", with a higher than average percentage of managerial and professional people.

About 65 per cent of the graduates go on to some kind of advanced training. Until about two years ago this percentage was about 80. New housing additions being constructed in this district are less costly than the existing housing, and more of the students from these new homes are non-college oriented.

The independent study program, which has been in operation for three years in this school, was originally placed in the successful category, although marginally, by the panel of experts. On the basis of three days of observation and after the data had been tabulated, the program was reclassified as less successful. The ranking was first questioned during the observation time when students could not be found in the quantities expected in the various study areas. Because there was an open-campus policy in this school, it was difficult to ascertain where the students were. Data from the student questionnaires showed that students admit to spending an average of 33 per cent of their independent study time "goofing off". It was upon tabulation of this data that the school was moved to the lower category. The average for all successful programs in the study was 17 per cent, for less successful programs, 29 per cent.

Program Objectives. Students in School I reported that teachers have spent little (3.02)[1] time talking to them about the objectives of the independent study program. They see the highest ranking objective as learning to do things on their own (1.68).

The principal explained that objectives for the I.S. program were in writing, but that these objectives were written by each department for their own use. Sixty-seven per cent of the staff reported that objectives were in writing; 51 per cent reported they had their own copy.

The principal believes that great effort has been made to discuss the objectives of the program with the staff, and that as a result, the staff has a strong understanding. Teachers, however, report that less than a moderate effort has been made to discuss program objectives. They report the staff's understanding to be only moderate.

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[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 3.02 falls almost exactly on "Little".

TABLE 76

COMPARISON OF PRINCIPAL AND STAFF RESPONSES TO PROGRAM OBJECTIVES QUESTIONS

Question	According to	
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	2.31	1.00
To what extent is the staff knowledgeable about them?	1.89	1.00
To what extent do they apply these in their work?	2.16	1.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.69	2.00
Develop inquiring mind	1.46	1.00
Develop self-discipline	1.54	1.00
Develop self-initiative	1.41	1.00
Develop resourcefulness	1.69	1.00
Develop self-evaluation skills	2.31	2.00
Develop research skills	1.46	1.00
Provide for individual differences	1.62	2.00
Free the teacher's time	2.97	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to report on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School I it was .62. The mean number of "Moderately"s in this section was 1.28, while at School I it was 1.21.

The principal explained that heavy responsibility is placed on the department chairmen for providing leadership in the I.S. program. Table 77 indicates that teachers find leadership emanating to a moderate extent from the department chairmen and little from any other source.

TABLE 77

SOURCES OF PROGRAM LEADERSHIP

Source	According to Principal	According to Teachers
Principal	2.00	2.87
A. D.	4.00	3.44
Other administrators	4.00	3.50
Department chairmen	1.00	2.05
A specific teacher	4.00	3.00
A specific group of teachers	4.00	2.68

General Organization for Instruction. This school has 25 modules of 13 minutes each plus 115 minutes of passing time each day. School I is programed on a five-day cycle. Large-group and small-group instruction are used. Freshmen have slightly less large-group time than students at other grade levels. Lower ability students at all grade levels have less large-group time than do students of other ability groups.

About one-third of the school program is team taught. Social studies and math are teamed; English and science are not. The typical teacher has no specific class or supervision assignment during about one-third of the regular school day.

Independent Study Program Organization. School I defines independent study differently than do the other schools in this study. Students are scheduled on the modular schedule and are left with about 30 per cent of their school day unscheduled. Each teacher may then "back schedule" each student for three modules per week -- that is, for three modules of the student's time each week, he may be assigned by his teacher to a particular study center, library, or classroom for "independent study". This still leaves each student with some free time remaining. A few students are assigned to study halls, but these students still retain a small amount of free time. According to the students, because the back-scheduled time is not controlled in most cases, it, too, becomes free time.

For the purpose of completing the data-collection instrument, students were asked to consider as I. S. time that portion of the school day during which they had freedom to go whenever they chose and to do whatever they chose without having to specify where they would be or what they would do. Fifty per cent of the sample indicated that they had 20 to 30 per cent of their school day on independent study. Thirty-seven per cent reported 35 per cent or more of their time unscheduled, while 13 per cent indicated less than 20 per cent free time. Some effort is made to avoid scheduling large blocks of I. S. time.

I. S. privileges may be restricted because of conduct or achievement problems. Restriction may result in the student's being assigned to either additional back-schedule time or to a study hall.

Students may move between study areas or leave campus at any time. Students are asked to be on campus between 8:00 a. m. and 10:30 a. m. but this policy is not enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 78 indicates that the heaviest uses are made of the traditional class and the one-to-one situation.

TABLE 78

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	14
Small group	18
Traditional size	29
One-to-one	29
Other	10

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (in Table 79) give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 79

NATURE OF STUDENT I. S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to Students	Teachers
Doing specific teacher-given assignments	25	37
Doing general teacher-given assignments (student makes a choice)	17	18
Studying what the student wants	14	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 80 indicates that grades were most important.

TABLE 80

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.95
Other teacher pressure	2.75
Own interest in work	2.35
Being observed	3.09
Other students	3.41
Parents	2.51

Teachers indicated that they made a moderate (2.00) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 59 per cent of the teachers listed one such technique, 39 per cent listed two, 17 per cent listed three, and 10 per cent listed four. Teachers also indicated that they relied upon grades moderately (1.92) and student self-interest between moderately and greatly (1.54) as means of stimulating student interest.

Students (2.94) and teachers (3.08) agreed that students are only required to a limited extent to discuss I.S. activities individually with their teachers.

Art and drafting projects are displayed as a means of stimulating student interest, and a literary magazine is published twice per year. The student council does not concern itself directly with the I.S. program.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The principal reports that little preparation is provided in the senior elementary school. Teachers agree that very little (3.43) evidence of preparation exists.

High school counselors meet individually with eighth graders for course selections. Printed material is sent home and a meeting is held with parents. Eighth graders are brought into the high school for a tour during the spring, and two one-hour group meetings are held in the fall. After school has started, social studies teachers spend about two weeks with freshmen on an orientation unit.

All teachers report that they spend a moderate (2.22) amount of class time discussing independent study.

The principal reports that teachers and counselors work with students who are not operating effectively in the program. The first contact with these students is made by the teacher, who talks with the student and perhaps requires more back-scheduled time. The next step is referral to a counselor who, after working with the student, may elect to assign him to a study hall.

Students report that little (3.02) class time has been devoted to discussing the I. S. program but that the teachers, collectively, provide moderate (2.07) help in understanding the program. Students had little (2.71) understanding of the program before they entered the school. They received little (2.86) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the student union at all times, and the weather is such that the school grounds are usable most of the time.

Supervision in study areas is provided primarily by teachers, except in the business education and foreign language areas where para-professionals are used and in the library where two clerks assist the librarian.

Table 81 indicates that students see teachers as the primary source of supervision.

Teachers estimated that 19 per cent of their non-instructional time was used for supervision. They are assigned to study centers and to the operation of open labs.

TABLE 81

SOURCE OF STUDENT SUPERVISION DURING I. S.

Source	According to Principal	 Students
Teachers	1.00	2.64
Other adults	3.00	3.34
Other students	4.00	3.41

Physical Facilities. School I operates in a fully air-conditioned plant which was designed to house a modular schedule. It has areas for large-group and small-group instruction.

The most frequently utilized area for I. S. is the library, which seats about 220 at tables. It is an exceptionally attractive area which is divided into three sections, creating an impression that it is smaller than it actually is.

Study centers are available for English, social studies, math-science, and business. The English and social studies centers, which each seat about 30 students (primarily at tables), are open to students whenever teachers are available to supervise them, about half the school day. They are used very little. The math-science center is in the middle of the complex which houses the science program. This center seats about 25 students at tables and is open during all of the school day. The normal student use is about six or eight students to each module. Many of the students who use this center are assigned there on back-scheduled time. The business center seats about 26 at individual tables and is available throughout the school day. It is used primarily by back-scheduled students.

A student union which can accommodate about 200 students is open throughout the school day. Thirty-six study carrels are available in two alcoves adjacent to the main room. Other seating is at tables and chairs. Because the room is cluttered and noisy, the study carrels are rendered ineffective and are sparingly used. The school grounds in general and a patio area in particular are available to students when the weather permits, which is most of the time.

Adequate laboratory facilities are available in all areas except industrial arts. About half of these facilities are available throughout the school day, either as open labs or on a space-available basis while classes are in session. These labs--physics, biology, and industrial-arts--are almost never available.

Nearly all teachers have adequate office space. About half of these offices are readily accessible to students. Workroom space is also available to teachers.

Material and Human Resources. An outstanding collection of printed materials is available to students in the library--about 14,500 volumes for 1,250 students. Particular strengths are the number of periodicals, the broad range of book titles, materials for the more-able student, and professional books for the staff. The English and social studies centers are poorly supplied. They have very few books or periodicals, although the English center does have about 100 paper-back titles. The math-science center has about 800 books and eight periodical titles.

AV materials are not an important part of this I.S. program. Although they are available through an AV clerk, they are seldom used by students. The English center has a typewriter and controlled reader. Typewriters, office machines, calculators, and two tape recorders are available in the business center.

Printed materials are readily accessible to students and may be checked out from either the library or the study centers. AV materials, with the exception of the few which are housed in the study centers, are not conveniently available to students.

Materials for the study centers are selected primarily by teachers and department chairmen (see Table 82).

TABLE 82

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS OTHER THAN THE LIBRARY

Personnel	According to	
	Teachers	Principal
Building administration	3.27	3.00
Department chairmen	1.82	1.00
Teachers	1.37	1.00
Students	2.82	3.00
Librarian	2.53	2.00
Non-certified personnel	3.75	4.00
District personnel	3.62	4.00

Study centers operate under the direction of the department chairmen with the assistance of the librarian as a resource person.

It is interesting to note that students believe that slightly greater effort is made to encourage their use of out-of-school resource people than is made to encourage their use of teachers other than those from whom they are taking classes. But in either case they see the level of uses as little (see Table 83).

Students reported that their own teachers were less than moderately (2.21) available to them and that students voluntarily spent little (2.94) time with these teachers. Students also indicated that teachers made little (2.94) effort to require them to discuss I.S. work individually.

TABLE 83

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	3.11	2.24	2.00
To what extent do they use other teachers?	3.28	2.56	2.00
To what extent are students encouraged to use outside resource people?	2.94	2.58	2.00
To what extent do they use outside resources?	3.06	2.68	3.00

Evaluation. According to the principal, each department chairman is responsible for evaluating I.S. in his own department, and the department chairmen as a group are responsible for evaluating the overall I.S. program. However, no specific techniques were identified. No analysis of test scores had been made, but information from graduates has been informally collected.

The principal believes that a moderate effort is made to evaluate teacher effectiveness in the program by subjective administrative appraisal. Teachers report that little (2.97) effort is made to evaluate their effectiveness.

Teachers indicate that from moderate to little (2.61) effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. The principal believes that a great effort is made to do this through student-teacher and student-counselor discussions.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 84. Responses vary from moderately to little, with assistance from other teachers ranked highest.

TABLE 84

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	According to Principal
Regular faculty meeting	3.10	3.00
Special meetings during the school year	2.92	2.00
Extended contracts	3.83	4.00
Individual conferences	2.47	2.00
University workshops	3.42	4.00
Use of resource people	3.05	3.00
Special assistance to new teachers	2.69	2.00
Printed materials - commercial	2.97	2.00
Printed materials - staff devised	2.67	1.00
Assistance from other teachers	2.10	1.00

Other Information. School I staff members report that they had some serious problems with I.S. during the first year of operation. All students were given the full range of independent study privileges at that time. As a result of difficulties growing out of that experience, the back scheduling and study hall systems were initiated.

CHAPTER IV

A COMPARISON OF CHARACTERISTICS RECOMMENDED IN THE LITERATURE TO CHARACTERISTICS OF SUCCESSFUL AND LESS SUCCESSFUL PROGRAMS

In Chapter II the literature pertaining to independent study programs was reviewed. This literature consisted almost entirely of theory about how a program should be structured and operated. In Chapter III, a description of each of the nine programs involved in this study was presented. This chapter (IV) compares the recommendations in the literature to the characteristics of the operating programs. Attention is directed to the differences in practices which exist between successful and less successful programs. The comparison is presented under the 12 sub-headings used to describe each program in Chapter III.

Program Objectives

A tacit assumption throughout the literature on the objectives of independent study is that teachers, and to some extent students, will discuss and understand the objectives of the independent study program. Table 85 shows that almost all teachers in successful programs are aware of the existence of written objectives for their program; most of these teachers have their own copy of these objectives. A smaller majority of the staffs in three of the less successful programs are also aware of written objectives and in two of these three schools a majority of the teachers have their own copy. In the remaining three programs few teachers are aware of any written objectives.

Table 86 provides additional evidence that in the successful programs the emphasis placed on communication about objectives is greater than the emphasis placed here in the less successful programs. Teachers were asked to what extent program objectives have been discussed with them, and to what extent they are knowledgeable about them. Responses in all successful programs fall above the mean on both questions while all but two of those in less successful programs fall below the mean.[1] Students were asked to what extent teachers have talked to them about the program objectives. Table 87 shows that student responses in all the successful programs fall above the mean while four of the six less successful programs fall below the mean.

Although program objectives are expressed in many ways in the literature, these objectives can be generally classed as follows:

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[1] Programs rated as successful are in Schools B, C, and H and those rated as less successful are in A, D, E, F, G, and I.

TABLE 85[1]

TEACHER AWARENESS OF EXISTENCE OF WRITTEN OBJECTIVES (ACCORDING TO TEACHERS)

Question	School								
	B	C	H	A	D	E	F	G	I
Are you aware of written objectives?	90	89	88	83	39	10	34	70	67
Do you have own copy?	79	64	84	63	34	4	34	50	51

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[1] On all questions where only a "yes" or "no" response was possible, figures given in tables indicate "yes" responses as a percentage of total responses.

TABLE 86[1]

EXTENT TO WHICH PROGRAM OBJECTIVES HAVE BEEN DISCUSSED WITH TEACHERS (ACCORDING TO TEACHERS)

Question	All Schools	B	C	H	A	D	E	F	G	I
To what extent have program objectives been discussed with you?	2.22	1.84	2.20	1.52	2.07	2.59	2.65	2.45	2.32	2.31
To what extent are you knowledgeable about these objectives?	2.10	1.72	2.07	1.60	2.17	2.48	2.47	2.48	2.00	1.89

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[1] Responses to questions are on a Greatly = 1.00 to Not at all = 4.00 scale. The lower the number the closer it approaches a "Greatly" response. Therefore if a number is smaller than the mean, it is referred to as being above the mean.

TABLE 87

EXTENT TO WHICH TEACHERS HAVE DISCUSSED PROGRAM OBJECTIVES WITH STUDENTS (ACCORDING TO STUDENTS)

Question	All Schools	School								
		B	C	H	A	D	E	F	G	I
Extent to which your teachers have discussed the objectives of the I. S. program with you?	2.79	2.51	2.73	2.64	2.79	3.07	2.89	2.52	2.73	3.02

1) Provide a structure which permits maximum program individualization for each student;

2) Assist students in developing an inquiring mind;

3) Encourage more creative work by students;

4) Teach and provide reinforcement, through use, of learning skills needed by the individual;

5) Encourage autonomous learning;

6) Develop self-discipline and decision making skills;

7) Increase student motivation for learning by increasing student involvement in decisions concerning his education.

The first two of these seven objectives are considered the most fundamental objectives by writers in the field.

Teachers were asked to what extent each of the following eight objectives have been emphasized to them as being important objectives of the independent study program in their school: (1) develop creativity; (2) develop an inquiring mind; (3) develop self-discipline; (4) develop self-initiative; (5) develop resourcefulness; (6) develop self-evaluation skills; (7) develop research skills; and (8) provide for individual differences.

Two differences between teacher responses in successful programs and those in less successful programs become apparent when Table 88 is reviewed. One is that objectives in general have received more emphasis in successful programs. In 24 possible

TABLE 88

EMPHASIS GIVEN TO VARIOUS OBJECTIVES (ACCORDING TO TEACHERS)

Objective	All Schools	School B	C	H	A	D	E	F	G	I
Develop creativity	1.98	1.55	1.87	1.72	1.98	2.11	2.29	2.50	2.10	1.69
Develop inquiring mind	1.75	1.43	1.67	1.40	1.86	1.89	2.06	2.14	1.85	1.46
Develop self-discipline	1.69	1.59	1.89	1.32	1.72	1.68	1.96	1.97	1.60	1.54
Develop self-initiative	1.62	1.42	1.68	1.28	1.71	1.57	1.93	1.97	1.59	1.41
Develop resourcefulness	1.82	1.56	1.84	1.44	1.81	1.89	2.13	2.17	1.85	1.69
Develop self-evaluation skills	2.37	2.16	2.33	2.00	2.38	2.25	2.81	2.68	2.44	2.31
Develop research skills	1.91	1.85	1.87	1.68	1.81	1.89	2.16	2.43	2.04	1.46
Provide for individual differences	1.74	1.64	1.53	1.28	1.81	1.75	2.13	2.03	1.84	1.62

response areas (3 successful program schools x 8 objectives) 21 are above the mean. Sixteen of 48 are above the mean in less successful programs. The other difference concerns the emphasis placed on the two most fundamental objectives -- providing for individual differences and developing inquiring minds. All of the successful programs fall above the mean on both of these while only one less successful program falls above on each.

An inconsistency in the patterns in Table 88 should be noted. School I, which is classed as less successful, falls above the mean on all eight objectives including the two most fundamental.

Staff Leadership

The literature provides little help regarding staff leadership patterns in independent study programs. Yet it is possible to make two rather tenuous generalizations: (1) that teachers must assume a more active leadership posture; and (2) that principals must assume a heavy leadership role.

Teachers were asked to respond on a "Greatly" to "Not at all" scale to indicate the extent to which leadership emanates from various staff members. Three conclusions may be reached from the data obtained. In Table 89 the mean number of per teacher responses to "Greatly" and "Moderately" has been calculated for each school. For all schools, the mean number of "Greatly's" per teacher was .85. All three successful programs exceed this mean by from .35 to .71 while all less successful programs fall below the mean by .04 to .38. The mean number of "Moderately's" reported by all schools is 1.28. Two of the three successful programs exceed this mean. The one which falls below is the school which has the largest number of "Greatly" responses. Five of the less successful programs fall below the mean for "Moderately." One may conclude that teachers in successful programs can identify stronger sources of leadership than can those in less successful programs.

The second conclusion is that who the leader is, is not as important as the fact that leadership exists. Teachers in each of the successful programs select a different primary source of leadership. In School B it is "a specific group of teachers" (most teachers indicate the I. S. committee). In School C it is the administrative director, and in School H it is the principal (see Table 90).

The third conclusion, supported by the evidence of Table 90, is that in successful programs teachers have assumed a more active leadership role. Two of the sources of leadership which teachers had the opportunity to identify were (1) a specific teacher, and (2) a specific group of teachers. Of the six possible response areas (3 successful programs x these 2 sources) teachers in successful

TABLE 89

MEAN NUMBER OF GREAT AND MODERATE SOURCES CF LEADERSHIP IDENTIFIED (ACCORDING TO TEACHERS)

Extent to which Leadership Emanates	All Schools	School B	C	H	A	D	E	F	G	I
Greatly	.85	1.23	1.20	1.56	.63	.57	.47	.76	.81	.62
Moderately	1.28	1.55	2.07	1.12	.95	.86	1.00	1.41	1.26	1.21

TABLE 90

SOURCES OF PROGRAM LEADERSHIP (ACCORDING TO TEACHERS)

Source	All Schools	School B	C	H	A	D	E	F	G	I
Principal	2.26	2.14	2.64	1.16	1.98	2.68	2.53	2.29	2.09	2.87
Administrative director	3.11	2.43	2.07	3.11	3.26	3.30	3.76	3.75	2.89	3.44
Other administrators	3.17	3.04	2.85	2.83	3.26	3.41	3.49	3.38	2.75	3.50
Department chairmen	2.42	2.55	2.55	2.04	3.05	2.39	2.59	2.27	2.25	2.05
A specific teacher	3.06	2.71	2.29	2.82	3.35	3.50	3.41	3.16	3.29	3.00
A specific group of teachers	2.82	1.77	2.19	2.82	3.03	3.63	3.29	2.65	3.28	2.68

programs place five above the mean for all schools. One falls on the mean. Out of 12 possible response areas in the less successful programs (6 schools x these 2 sources) three are above the mean.

The available data do not support any conclusions about the leadership role of the principal. Because the organizational structure varies considerably from school to school, a more detailed study of the principal's role would be necessary. For example, in one of the successful schools the responsibility for development of the I. S. program has been definitely delegated to an administrative director, whom the staff identified as the primary source of leadership.

General Organization for Instruction

Most of what has been written about the general organization for instruction in schools with independent study programs has been produced by Trump. He recommends a modular schedule with heavy use of team teaching, large-group and small-group instruction. Heavy emphasis is placed on the need to individualize each student's schedule according to his educational needs and capacities.

All schools in this study operate on modular schedules which are very much alike in terms of time divisions.

There are differences in the amount of team teaching. All of the successful programs employ this technique heavily. The amount of team teaching is controlled primarily by the size of the school and the number of classes of a given subject. Only one of the less successful programs is more than one-third team taught; three of these programs employ very little or no team teaching.

All schools, with the exception of one less successful one, use both large-group and small-group instruction. Almost all vary the amount of each according to the student's ability level.

In connection with the need to individualize students' programs a wider discrepancy between successful and less successful programs appears. All successful programs engage in activities designed to accomplish individualization. For example, they pretest students to determine their needs, release students who demonstrate adequate mastery of that class from classes, offer enrichment courses during I.S. time, make contractual arrangements with students for these students to deviate from the standard program, and release students to outside educational agencies. Some of these same activities are being used in less successful programs but neither to the extent nor to the intensity found in the successful programs.

It should also be noted that the amount of time the typical teacher has free from class or supervision assignments ranges from 26 to 47 per cent in successful programs. In three of the less successful programs less than 20 per cent of the teacher's time is unscheduled.

Independent Study Program Organization

Patterns of organization against which comparisons can be made are not apparent in the literature. Still, two points of discussion are identifiable. One is concerned with determining which students should have I. S. privileges; the other with the kinds of controls which should limit the student's activities. If Trump's writings are again used as the base line, then the goal will be to attempt to help all students learn to operate independently. However, Trump would have the staff decide the amount and kind of I. S. time individual students should have. Trump also indicates that some control of student movements during I. S. time may be advisable.

When successful and less successful programs are compared to see which students are accorded I. S. privileges, no useful patterns emerge. One successful program gives all students I. S. time. A second provides it for all students at the beginning of the year, then restricts some individuals. The third accepts applications for I. S. privileges from any student but grants it to only about 60 per cent of the student body. A similarly varied approach exists among the less successful programs. Misconduct and poor achievement are the most common reasons given for limiting I. S. time.

But when the two classes of schools (successful and less successful) are compared with regard to student movement, two patterns do appear. One of these relates to the kinds of restrictions. All but one school provide opportunities for students to spend I. S. time in a wide variety of settings. All successful programs restrict student movements on the grounds and in the buildings to the passing time between modules. These restrictions are usually designed to control the noise level and atmosphere of classrooms or study areas. Frequently, students are not allowed to enter or leave a study area except between modules. Only two of the less successful programs have similar restrictions. All successful programs maintain a closed campus, but only one of the less successful does.

The other difference has to do with the extent to which stated rules are enforced. In successful programs there is a very strong tendency for stated rules to be enforced, at least to the extent that they accomplish the end the rule was designed to achieve. As stated above, all of the successful programs enforce a closed campus policy. Five of the six less successful programs have a rule which restricts students to the campus, but only two enforce the rule. Three of the less successful programs also place some explicit restrictions on student movements while on campus, but only one enforces these.

Origin of Study Activities

Three types of independent study work are identified in the literature. The first of these is the standard homework or specific assignment, such as "read pages 18 through 27." A second type, also frequently found in the traditional program, is the assignment given in a way that the student has some choices to make such as "select a topic of your choice and be prepared to take part in a panel discussion." The third type is study by a student only because he is interested in it. It is the contention of the writers in the field that this third kind is not often found in the traditional program. These writers suggest the better I. S. programs should encourage more of this kind of student interest.

The literature asks that I. S. activities in which a student is involved fit his particular capacities and readiness -- that is, they should be individualized.

Students were asked what percentage of their I. S. time is spent doing specific assignments, doing general assignments, and studying things just because they are interested. Students in successful programs spend slightly more time studying things just because they are interested, but these same students spend slightly more time in all kinds of productive activities (see Table 91). The data is inconclusive on this point.

Teachers were asked to what extent student I. S. activities are generated in large groups, small groups, traditional size classes, one-to-one situations, and other settings. The assumption was made that study activities which are generated in the small-group and one-to-one situations will tend to be more individualized because of the characteristics of these settings. Table 92 reveals that study activities in successful programs are generated slightly more often in one-to-one settings and substantially more often in small-group settings than is the case in less successful programs. Based on this evidence and rationale, a rather tenuous conclusion may be suggested that successful programs do make a greater effort to individualize student I. S. activities than do less successful programs.

Motivation Techniques

Six points seem to be made in the literature regarding motivation:

1) Once the proper climate is developed and the student becomes an active part of the situation, motivation tends to become cyclical in nature;

TABLE 91

NATURE OF STUDENT I.S. ACTIVITIES[1] (ACCORDING TO STUDENTS)

Nature of Activity	All Schools	Schools B	C	H	A	D	E	F	G	I
Doing specific assignments	29	34	37	28	29	33	30	27	25	22
Doing general assignments	17	19	16	17	17	18	16	15	14	17
Studying what the student wants	16	16	16	18	14	18	14	14	16	14

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[1] Reported as a percentage of all responses.

TABLE 92

PERCENTAGE OF STUDENT I. S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS (ACCORDING TO TEACHERS)

Setting	All Schools	Schools								
		B	C	H	A	D	E	F	G	I
Large group	24	20	32	40	24	13	20	19	38	14
Small group	21	33	30	25	12	20	9	23	20	18
Traditional size	32	21	12	14	50	42	51	34	33	29
One-to-one	16	20	19	16	9	16	14	12	7	29
Other	7	6	11	5	4	9	6	9	3	10

2) The school needs to place importance on independent study, and make this emphasis apparent to the student;

3) An appropriate physical setting will help stimulate productive I. S. work;

4) The teacher must build I. S. stimulants into the classroom setting;

5) Maintaining individual student-teacher dialogue concerning I. S. is important; and

6) The student should know that I. S. privileges may be revoked.

The data from this study provide no help in determining whether a cyclical effect actually develops from a proper climate in the program.

Data are available about the attempts of the schools to get students to recognize the importance placed on independent study. Each administrative director was asked what kinds of techniques are employed at the program level (*i. e.*, other than those employed by teachers in their dealings with students) to stimulate student interest in I. S. activities. Three of the less successful programs make some effort to display I. S. projects, but none appear to work very actively at this. Two of the successful programs make a major effort to stress the importance of I. S. work. They do such things as display projects, send letters from the principal, display posters, and select a scholar of the month.

If "an appropriate physical setting" is defined as meaning a suitable place and the necessary resources, then differences appear between the successful and the less successful groups. These differences are detailed in the sections on "Physical Facilities" and "Material and Human Resources." The data in these sections indicate that all of the successful but only one of the less successful programs satisfies both of these requirements.

As a means of determining the extent to which stimulants were built into the classroom setting, teachers were asked to list up to four motivational techniques they used. Table 93 indicates that teachers in successful programs are able to list more techniques than are those in the less successful programs.

Students were asked to what extent they voluntarily discuss or are required to discuss their I. S. activities individually with their teachers. Table 94 shows that students in all three successful programs are at or above the mean on each question while only two less successful programs are above the mean, one on each question.

The practice of revoking I. S. privileges varies between the two quality groups. Two of the successful and four of the less successful programs restrict I. S. time for such things as misconduct or poor achievement.

Although it is not discussed in the literature, an interesting

TABLE 93

PERCENTAGE OF TEACHERS LISTING 1, 2, 3, OR 4 MOTIVATION TECHNIQUES

Number of Techniques Listed	All Schools	School								
		B	C	H	A	D	E	F	G	I
One	58	53	73	79	49	40	54	61	53	59
Two	40	37	49	63	30	28	41	35	40	39
Three	24	27	29	38	26	16	31	10	23	17
Four	11	15	20	17	9	5	9	0	13	10

TABLE 94

EXTENT TO WHICH STUDENTS DISCUSS I. S. ACTIVITIES WITH TEACHERS (ACCORDING TO STUDENTS)

Nature of Impetus	All Schools	School								
		B	C	H	A	D	E	F	G	I
Voluntarily	2. 77	2. 77	2. 26	2. 73	2. 88	2. 73	2. 94	2. 92	2. 82	2. 94
Required	3. 16	2. 88	2. 72	3. 06	3. 18	3. 64	3. 39	3. 27	3. 38	2. 94

picture concerning pressure on students emerges from the data. Students were asked to what extent their I. S. activities are engaged in because of various pressures. Table 95 shows that students in successful programs are above the mean in all of 18 possible response areas (3 successful schools x 6 pressures). Students in less successful programs are above the mean in 13 of 36 possible response areas. Although their responses vary from moderately to very little, it appears that students in better programs feel a greater sense of pressure than do others.

Preparation of Students

There is agreement in the literature that the development of the necessary skills which a student needs to operate independently should not be left to chance. Trump lists some specific skills which need to be developed, but gives little suggestion as to how the necessary skills and attitudes may be achieved.

There is nearly complete agreement among the schools observed that the feeder schools do little of a specific nature to prepare students to operate effectively in the I. S. program.

All schools in the study provide for some kind of pre-school orientation, operated by the high school. All of the successful programs follow this with some kind of orientation program after school

TABLE 95

PRESSURES AFFECTING I. S. ACTIVITIES (ACCORDING TO STUDENTS)

Pressure	All Schools	School								
		B	C	H	A	D	E	F	G	I
Grades	1.92	1.85	1.80	1.79	1.88	2.09	2.05	1.99	1.91	1.95
Other teacher pressure	2.80	2.69	2.66	2.74	2.76	2.96	2.93	2.92	2.83	2.75
Own interest in work	2.09	2.04	1.91	2.08	1.94	1.84	2.27	2.22	2.14	2.35
Being observed	3.10	3.09	2.99	2.92	3.11	3.08	3.27	3.23	3.13	3.09
Other students	3.35	3.21	3.22	3.34	3.27	3.52	3.46	3.33	3.35	3.46
Parents	2.49	2.38	2.43	2.34	2.45	3.00	2.57	2.43	2.28	2.51

starts. Three of the six less successful programs also provide an orientation program during the first part of the school year.

In all schools, students who are not operating effectively receive some attention in the counseling program. Administrative directors were asked whether these students receive any special assistance beyond this. In all of the successful programs and in one less successful program they are able to identify some other aid. This most commonly takes the form of providing some means of increasing individual student-teacher contact.

Students in successful programs generally feel that more effort is expended to help them understand the I. S. program than do students in less successful programs. Class time devoted to I. S. discussion and help in general from teachers fall above the mean in all successful programs. Two less successful programs fall above the mean on each question (see Table 96).

Supervision of Students

Two generalizations appear in the literature pertaining to supervision of students in independent study programs. One of these is that students can accept much more responsibility for their own supervision than is usually permitted in traditional programs. The other generalization is that because these students are

TABLE 96

SOURCES OF HELP IN UNDERSTANDING I.S. PROGRAM (ACCORDING TO STUDENTS)

Source of Help	All Schools	School								
		B	C	H	A	D	E	F	G	I
Class discussion	2.79	2.51	2.72	2.64	2.79	3.07	2.89	2.52	2.73	3.02
Teacher help	1.89	1.83	1.64	1.77	1.78	1.87	2.01	2.02	2.05	2.07
Student help	2.65	2.56	2.38	2.75	2.57	2.58	2.77	2.70	2.72	2.86

adolescents with varying characteristics, some supervision is still necessary. The use of non-certified personnel for supervision is also strongly recommended.

There seems to be little difference in the amount of supervision provided in successful programs as compared to that provided in less successful programs. However, there is a difference in the supervisory personnel. Aides are used in all of the successful programs but in only half of the less successful programs. There also appear to be differences in the backgrounds of these aides. In successful programs a major consideration in selection is academic competence in areas appropriate to their supervision responsibilities. In less successful programs many aides seem to have been selected for their ability to provide services for teachers rather than their ability to provide services to students.

Physical Facilities

Facilities for independent study have been treated generously in the literature. A basic disagreement has centered around where I.S. materials should be housed. One point of view is that all materials should be housed in a centralized area -- the instructional materials center concept. The other position is that separate study centers -- such as English, social studies, and science -- should be developed. Successful programs seen in this study use both approaches. For example, School B has highly developed separate study centers; School C has a highly developed I. M. C.

Six generalizations about physical facilities are drawn from the literature.

1) Facilities need to be such that students can have ready access to printed materials appropriate to their I. S. activities.

2) The same consideration needs to be given to accessibility of AV materials.

3) Suitable laboratory facilities must be available for I. S. work.

4) A physical atmosphere which is conducive to study needs to be provided.

5) Privacy for study needs to be provided, at least to the extent that the student can work without interference from others. A device often mentioned as a means of providing this privacy is the individual study carrel.

6) Students need some facilities where they can talk and work together.

It is rather difficult to correlate any specific physical facilities with program success, because of other variables which are very difficult to assess. As an example, the atmosphere in a study area may be strongly affected by such things as furniture placement or the effectiveness of the supervisor in charge. How the facilities are used may be as important as the nature of the facilities themselves.

Two of the successful programs are housed in physical plants which were designed for traditional programs and have been remodeled only in minor ways. The third successful program, housed in a very old, quite inadequate physical plant, has added a functional instructional materials center. Three of the less successful programs are housed in facilities designed for a modular schedule, two in traditional plants, and the other in a traditional plant that has added a new wing designed for the modular schedule.

When the physical facilities are analyzed to see how closely they satisfy the requirements established by the literature, some differences between successful and less successful programs appear.

Students in all of the successful programs, but in just one of the less successful programs, have physical facilities which give them ready access to printed materials. Three of those schools which do not meet this standard lack adequate seating capacity in the areas where the materials are kept. Other problems are caused by non-I. S. students being scheduled into a facility in such numbers that there isn't adequate room for I. S. students or where the materials do not exist in sufficient quantity.

All of the successful programs provide satisfactory listening and viewing facilities for the use of AV materials. Only one of the less successful programs provides satisfactory AV facilities.

The availability of suitable laboratory facilities is more a product of policies relating to use of these facilities than it is of their existence. Eight of the nine programs have at least fair laboratory facilities. The one which does not is in School C, a successful program. One successful and one less successful program make extensive use of the labs for independent study. Others are handicapped by such things as scheduling problems, staff members who do not believe in open labs, or a lack of supervisory personnel for the labs.

All of the successful programs and one of the less successful programs provide atmospheres which the researcher feels are conducive to study. Noise, student traffic problems, and austere appearance are the most common problems in the others.

Opportunities for at least semi-privacy while studying are fair or good in the successful programs. Four of the less successful programs provided poorly for privacy. Study carrels are used to a great extent in one successful program and in one less successful program. They are used to some extent in the other two successful programs and in one less successful program.

Facilities where students can work together (particularly in conference rooms) are rated as good in two successful programs and one less successful program. Four of the less successful programs are rated as poor in this area.

A summary of the researcher's evaluation of physical facilities in each of the nine programs may be seen in Table 97.

Material and Human Resources

The first major point made in the literature dealing with material and human resources is that student interests and abilities will cover a broad range, and that this breadth must be reflected in the available resources. These resources should include printed materials, AV materials, and personnel.

The other major point is that students must have ready accessibility to these resources with a minimum of red tape and a maximum of encouragement and assistance.

The quality of the printed and AV materials collections in each school was rated by the researcher. A difference between successful and less successful programs is readily apparent in Table 98. All of the successful programs have good collections of both printed and AV materials. Only two of the less successful programs have good collections of printed materials and none have good collections of AV materials.

Table 97 indicates that these collections are readily accessible to students in the better programs and not as accessible in the less

TABLE 97

ADEQUACY OF PHYSICAL FACILITIES FOR I. S. (ACCORDING TO RESEARCHER)

Provision for	School								
	B	C	H	A	D	E	F	G	I
Accessibility to printed materials	G	G	G	F	F	P	F	F	G
Accessibility to AV materials	G	G	G	G	N	N	N	N	F
Suitable laboratory facilities	G	P	F	G	P	P	F	P	F
Suitable study atmosphere	G	G	G	F	F	P	F	F	G
Semi-privacy for study	F	G	F	G	F	P	P	P	P
Space where students may work together	F	G	G	G	F	P	P	P	P

G = Good; F = Fair; P = Poor; N = Non-existent (or so inadequate as to be of no use)

TABLE 98

ADEQUACY OF I. S. MATERIALS COLLECTION (ACCORDING TO RESEARCHER)

Type	School								
	B	C	H	A	D	E	F	G	I
Printed materials	G	G	G	G	P	F	P	F	G
AV materials	G	G	G	F	N	N	N	P	F

G = Good; F = Fair; P = Poor; N = Virtually non-existent successful programs.

The same pattern holds true in the area of human resources. Table 99 shows that students in successful programs report their teachers to be more available to them, the students voluntarily talk with them more, and the students are required to talk with them more than are the students in less successful programs.

They also are encouraged to use and actually use, to a greater extent than do students in less successful programs, the services of teachers from whom they are not taking classes as well as outside resource people (see Table 100).

Evaluation

No information in the literature helps evaluate a total I. S. program. However, the literature stresses that students must be helped to evaluate their efforts and that these evaluations must be done individually for each student.

A review of the sections in Chapter III dealing with evaluation indicates that two of the successful programs have well developed evaluation procedures established for the total program. The third school has a committee which deals with evaluation and uses test score analysis and college follow-ups. One of the less successful programs has a similar system for evaluation. All do some

TABLE 99

EXTENT OF STUDENT USE OF OWN TEACHERS IN I.S. (ACCORDING TO STUDENTS)

	All Schools	School								
		B	C	H	A	D	E	F	G	I
Extent of teacher availability	2.08	1.90	1.69	1.96	1.99	2.26	2.23	2.35	2.15	2.21
Extent used voluntarily	2.77	2.77	2.26	2.73	2.88	2.73	2.94	2.92	2.82	2.94
Extent required to use	3.16	2.88	2.72	3.06	3.18	3.64	3.39	3.27	3.38	2.94

TABLE 100

EXTENT OF STUDENT USE OF OTHER RESOURCE PEOPLE (ACCORDING TO STUDENTS)

	All	School								
	Schools	B	C	H	A	D	E	F	G	I
Encouraged to use other teachers	2.87	2.66	2.40	2.59	3.13	3.20	2.84	2.95	2.92	3.11
Actually use other teachers	3.05	2.98	2.74	2.89	3.10	3.14	3.18	3.08	3.03	3.28
Encouraged to use outside people	2.92	2.48	2.61	2.88	2.83	3.48	2.93	3.07	3.11	2.94
Actually use outside people	3.00	2.75	2.86	2.98	2.92	3.48	2.92	3.03	3.04	3.06

subjective work, and most collect informal comments from college students, but to a lesser degree than do the successful programs.

Teachers were asked to what extent students are aided in evaluating their own progress. Table 101 shows that all three successful programs and one less successful program fall above the mean.

Staff In-Service Activities

Numerous references are made in the literature to the need for teachers to learn new skills, develop a thorough understanding of the program, and take part in planning and decision making. Each of these requirements has in-service implications, but the literature stops here. There is a tacit understanding that a program is needed, but no direction is given as to how it should be undertaken.

Teachers were asked to what extent 10 specific in-service activities have been used in connection with the independent study program in their school. Although no particular activity stands out as the most commonly employed, it is apparent from Table 102 that teachers in successful programs believe that a great deal more effort has been devoted to in-service than do teachers in less successful programs. Out of 30 possible response areas (3 successful schools x 10 activities) 27 are above the mean in successful

TABLE 101

EXTENT TO WHICH STUDENTS AIDED IN EVALUATING I. S. PROGRESS (ACCORDING TO TEACHERS)

	All	School								
	Schools	B	C	H	A	D	E	F	G	I
Extent of aid to students	2. 77	2. 34	2. 64	2. 09	3. 07	3. 14	3. 15	2. 96	2. 94	2. 61

TABLE 102

IN-SERVICE ACTIVITIES USED TO IMPROVE I. S. PROGRAM (ACCORDING TO TEACHERS)

Activity	All Schools	School								
		B	C	H	A	D	E	F	G	I
Regular faculty meetings	2.80	2.51	2.60	2.16	2.81	3.00	3.13	3.04	2.83	3.10
Special meetings during school year	2.71	2.38	2.22	2.48	2.65	2.86	3.19	3.08	2.64	2.92
Extended contracts	3.45	3.35	3.27	3.62	2.81	3.77	3.35	3.52	3.52	3.83
Individual conferences	2.91	2.94	2.76	2.20	3.17	3.02	3.23	3.11	3.26	2.47
University workshops	3.15	3.29	2.42	2.79	3.02	3.44	3.25	3.59	3.10	3.42
Use of resource people	2.81	2.76	2.53	2.00	2.86	2.77	3.27	3.23	2.83	3.05
Special assistance to new teachers	2.92	2.76	2.51	2.32	3.17	3.09	3.04	3.44	3.22	2.69
Printed materials-commercial	2.91	2.91	2.55	2.48	2.81	3.05	3.19	3.30	2.93	2.97
Printed materials-staff devised	2.69	2.31	2.23	1.92	2.69	3.10	3.07	3.19	3.00	2.67
Assistance from other teachers	2.47	2.32	2.14	2.13	2.50	2.93	2.75	2.56	2.62	2.10

programs and 12 out of 60 are above the mean in less successful programs.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has as its purpose the identification of characteristics which contribute to successful secondary school independent study programs. Three major steps have been carried through in achieving this purpose:

1) Independent study program characteristics recommended in the literature have been identified.

2) Case studies of three successful and six less successful independent study programs have been completed.

3) Those characteristics identified from the literature, those found in successful programs, and those found in less successful programs have been compared.

The same 12 characteristic areas which are used as the basic organizational structure in Chapters II, III, and IV provide the pattern for this summary.

Summary

Program Objectives

The literature indicates that teachers in successful programs have a better understanding of the objectives of their programs than teachers in less successful programs. The data from this study indicate that objectives in successful programs are more frequently discussed, and better understood than in less successful programs.

Providing a structure which permits individualization of instruction and helping the student to develop an inquiring mind are the most emphasized objectives in the literature. When teachers were asked to identify the objectives which receive the most attention in their I. S. programs, differences in emphasis among objectives were not discernible. However, it is apparent that the development of objectives receive greater attention in successful programs.

Staff Leadership

Teachers in successful programs feel that they have stronger leadership than do those in less successful programs. When rating leadership sources on the "Greatly" to "Not-at-all" scale, each of the three successful schools identifies "Greatly" more than does any of the less successful staffs.

The primary source of leadership is different in each of the successful programs. In one it is the principal; in one other, the administrative director; and in the third, a specific group of teachers (*i. e.*, a committee on independent study). Individual teachers and groups of teachers are also identified more frequently as sources of leadership in the successful programs.

General Organization for Instruction

J. L. Trump, who has provided much of the literature on the general organization for instruction as it is related to independent study, recommends a modular schedule and team teaching with heavy emphasis placed on individualizing each student's program according to his needs and capacities.

All schools in this study operate a modular schedule, but successful programs make heavier use of team teaching.

It is in connection with efforts to individualize each student's program that the greatest difference appears between the successful and the less successful programs. All successful programs emphasize activities designed to accomplish individualization. They pre-test students to determine needs, release from specific classes those students who demonstrate adequate mastery, offer enrichment courses during I. S. time, make contractual arrangements with students which allow those students to deviate from the standard program, and release students to outside educational agencies. Some of these same techniques are being used in less successful programs, but neither to the extent nor with the intensity found in the successful programs.

Successful programs also provide teachers with somewhat more unscheduled time in which they can work individually with I. S. students.

Independent Study Program Organization

The literature largely ignores the matter of program organization. Nevertheless, two points of discussion are identifiable. One of these has to do with the selection of students for participation in the I. S. program; the other, with the restrictions that should be placed on student activities during I. S. time.

The data do not give support to any one practice for selecting students who should participate in the I. S. program. Practices differ substantially within both the successful and the less successful quality groups.

Successful practices do appear, however, with regard to restrictions placed on student movements during I. S. time. Schools in the successful group have policies which place greater restrictions on student movement than do the policies of the less successful schools. The successful schools all maintain a closed campus and restrict some student movement on campus. Only one of the less successful programs maintains a closed campus, and only two restrict student movement on campus. Furthermore, in successful programs there is a strong pattern of stated rules being enforced, at least to the extent that these rules accomplish the ends they were designed to achieve. Although most of the less successful programs, too, have stated rules, these rules are frequently not enforced.

Origin of Study Activities

Students in successful independent study programs, according to the literature, will spend more time studying things just because they want to than will students in other programs. These I. S. activities will tend to originate more often in small-group or individual teacher-student settings, thus reflecting the individualized nature of the program.

The data relating to the first of these points are inconclusive. Students in successful programs do indicate that they spend slightly more of their I. S. time studying things just because they want to, but these same students spend more time in many other kinds of productive activities as well.

Teachers in successful programs reported a slightly higher rate of I. S. activities originating in one-to-one and small-group situations than did teachers in less successful programs. This information suggests that successful programs make a particular effort to individualize student I. S. activities, but the differences between the successful and the less successful groups in this matter are not great enough to merit a definite conclusion.

Motivation Techniques

Six points are made in the literature regarding motivation:

1) Once the proper climate is developed and the student becomes an active part of the situation, motivation tends to become cyclical in nature;

2) The school needs to place importance on independent study and make this emphasis apparent to the student;

3) An appropriate physical setting will help stimulate I. S. work;

4) The teacher must build I. S. stimulants into the classroom setting;

5) Maintaining individual student-teacher dialogue concerning independent study is important; and

6) The student should know that I. S. privileges may be revoked.

No data were collected which had bearing on the cyclical nature of motivation. Also, the evidence concerning revoking of I. S. privileges is inconclusive.

However, data on the other four points indicate that schools with successful programs do make a greater effort to stimulate student interest in I. S. activities than do schools with less successful programs. The successful schools make a greater effort to communicate an air of importance about I. S. work; they provide a better physical setting; they make a greater effort to build I. S. stimulants into classroom work; and they maintain a higher level of student-teacher dialogue about independent study.

Students in successful programs report a greater feeling of pressure on them with regard to their choice of I. S. activities. They indicate an above-mean concern with every one of the pressures identified on the questionnaire. In only 39 per cent of the possible response areas do students in less successful programs indicate above-mean concern.

Preparation of Students

All schools in the study provide a pre-school orientation program for incoming students. All of the successful and half of the less successful programs also follow this up with further orientation after school starts.

In all schools, students who are not operating effectively in independent study receive some attention in the counseling program. These same students receive some additional help in all of the successful schools, but in only one of the less successful. This additional help most commonly is in the form of providing some way of increasing individual student-teacher contact.

The data also indicate that students in the successful programs receive more help from teachers, both in and out of class, in developing an understanding of the I. S program.

Supervision of Students

Little difference in the amount of supervision provided students during I. S. time appears between the successful and the less successful programs. Successful programs, however, use more aides for supervision and tend to select them for their ability to provide services to students (i. e., their ability to relate to students and their subject matter competency). Less successful programs use fewer aides, and tend to hire them for their ability to provide services for teachers (i. e., their clerical skills).

Physical Facilities

Six generalizations about physical facilities have been drawn from the literature.

1) Facilities need to be such that students can have ready access to printed materials appropriate to their I. S. activities.

2) The same consideration needs to be given to accessibility of AV materials.

3) Suitable laboratory facilities must be available for I. S. work.

4) A physical atmosphere needs to be provided which is conducive to study.

5) Privacy for study needs to be provided, at least to the extent that the student can work without interference from others.

6) Students need some facilities where they can talk and work together.

A comparison of the physical facilities of successful schools with those of less successful schools shows that the use made of these facilities has a primary bearing on their adequacy for independent study. Some of the most attractive and potentially functional facilities are found in less successful programs. They do not function effectively because of policy regarding their use, the way they are equipped, or the kind of supervision provided with them.

When each of the above six criteria was rated by the researcher, the successful programs scored as follows: Good, 13; Fair, 4; Poor, 1; Non-existent, 0. Less successful programs received these scores: Good, 6; Fair, 13; Poor, 13; Non-existent, 4. It should be noted that the basic school structures seem to be adequate for developing appropriate I. S. facilities in most cases.

Material and Human Resources

A major point made in the literature dealing with material and human resources is that student interests and abilities will cover a broad range and that this breadth must be reflected in the available resources -- printed materials, AV materials, and personnel. Another major point is that students must have ready accessibility to these resources with a minimum of red tape and a maximum of encouragement and assistance.

Both the quality and accessibility of collections in successful programs are superior to those of less successful programs. Human resources are also more heavily used in the better programs; greater use is made by students of their own teachers, other teachers, and out-of-school people as resources in their I. S. work.

Evaluation

The literature indicates that for meaningful evaluation of independent study, two considerations are important: (1) the total program, and (2) each student's independent study activity and growth.

All schools in the study collect at least subjective data about the total I. S. program. The successful schools utilize more objective data and tend to provide a more sophisticated evaluative procedure.

An even more distinct difference between the evaluation practices of the successful programs and those of the less successful programs became apparent when teachers were asked to what extent students are aided in assessing their own progress. The responses from teachers in all of the successful programs fall substantially above the mean and those from teachers in all but one of the less successful programs fall substantially below the mean.

Staff In-Service Activities

The literature strongly implies that extensive in-service activity is necessary with the staff if an independent study program is to operate effectively, but no direction is given as to how this in-service activity should be carried out.

When teachers were asked to what extent ten different in-service activities had been used in connection with the independent study program in their schools, it became clear that substantially more in-service work had been done in successful programs. Ninety per cent of the possible response areas are above the mean in the better programs and 20 per cent are above the mean in less successful programs. No particular in-service activity stands out as being most effective.

Conclusions

1. The extent to which staff members gave attention to and were knowledgeable about program objectives was a factor in the success of the program.

2. When teachers were asked to identify the objectives which had received the greatest emphasis in the I. S. program in their schools, similar responses were received in the successful and in the less successful programs. Slightly more emphasis was placed on providing for individual student differences and on developing an inquiring mind in the successful programs.

3. The ability of teachers to identify sources of strong leadership in the independent study program was positively related to the success of that program.

4. The source of leadership was not as important as the fact that leadership existed. Teachers in successful I. S. programs identified three different sources of primary leadership--the principal, other administrators, and a committee of teachers.

5. Teachers in successful programs assumed greater leadership responsibilities than did those in less successful programs.

6. Successful programs provided more opportunities for each student to be engaged in learning activities uniquely fitted to his needs than did less successful programs. There was greater emphasis

on analysis of individual needs and more willingness to allow students to deviate from the standard program.

7. Teachers in successful programs were provided with time to work individually with students in their I.S. activities.

8. Successful programs placed slightly more limits on student movements during I. S. time and were more consistent in enforcing these limits than were less successful programs. (The most common limits consisted of restricting student movement between study areas to the passing time between modules and requiring students to stay on campus during the school day.)

9. Successful schools deliberately built into the program a wide variety of motivational techniques designed to stimulate student interest in independent study activities.

10. Students in successful programs felt that greater pressure was exerted on them to make productive use of their I. S. time than did students in less successful programs. These pressures were identified as coming from grades, teachers, parents, other adults, and other students.

11. Students in successful programs received more help from teachers, both in class and outside of class, in developing an understanding of the independent study program and adjusting to it.

12. The use of aides, selected for their ability to provide assistance to students, increased the effectiveness of an

independent study program.

13. Suitable physical facilities were important but were provided without extensive remodeling in most existing school plants.

14. The ways in which physical facilities were used was as important as the actual design of those facilities.

15. Superior independent study programs provided students with easy accessibility to a good collection of printed and AV resources designed to take care of a broad range of interests and abilities.

16. Students in successful programs were given more encouragement by, and actually made more use of, their own teachers and other teachers in connection with their I. S. work than did students in less successful programs.

17. Teachers in successful programs provided more help for students in evaluating their own progress than did teachers in less successful programs.

18. Substantially greater effort was placed on in-service activities pertaining to the independent study program in successful programs than in less successful programs.

Recommendations

The ultimate purpose of this study was the identification of characteristics which contribute to the development of successful secondary independent study programs. It is with this purpose in mind that the following recommendations are made.

Program Objectives

A continuous effort needs to be made to help teachers develop a thorough understanding of the objectives of the independent study program. This understanding should be complete enough so that it becomes a conscious basis on which decisions are made during daily student-teacher interactions.

Emphasis should be placed on three specific objectives: independent study as a means of (1) providing for individual differences among students; (2) developing an inquiring mind; and (3) developing self-initiative.

Staff Leadership

Leadership needs to be specifically developed for the independent study program. This leadership may emanate from sources such as the principal, another administrator, or from committees of teachers. The position of the source is not as important as is the teacher's ability to identify with it.

Whether or not teachers assume the primary leadership position in the I. S. program, they should be encouraged to take an active leadership role.

General Organization for Instruction

The scheduling of students needs to be flexible enough so that any student's schedule may be adjusted as the need becomes apparent. A modular schedule and the use of team teaching may help provide this flexibility.

Great emphasis should be placed on the analysis of individual student needs, and teachers need to be willing to allow students to deviate from the standard program. This analysis may be aided by such practices as pretesting students to determine needs, releasing from specific classes students who demonstrate adequate mastery of those classes, offering enrichment courses during I. S. time, making contractual arrangements with students which allow these students to deviate from the standard program, and releasing students to outside educational agencies.

The schedule needs to be organized in such a way that teachers are free from regular classes at least one-third of the time and are available to work individually with students during much of that unscheduled time.

Independent Study Program Organization

Restrictions need to be placed on students' activities and movements during I. S. time, at least to the extent that an effective learning environment is maintained. These restrictions may include requiring students to remain on campus throughout the regular school day, limiting movement between study areas to certain times, and controlling conduct in study areas. Limits which are placed on students' I. S. activities should be no more restrictive than necessary, but those regulations which are established should be enforced.

Origin of Study Activities

The student's independent study activities should be as individualized as possible. To facilitate this individualization, the small-group setting and teacher-student conferences may be used to discuss I. S. activities.

Motivation Techniques

A wide variety of motivational techniques designed to stimulate student interest in independent study activities needs to be built into the program. These techniques should include extensive effort by teachers to build I. S. stimulants into the regular classroom activities, to provide means for recognizing outstanding I.S. accomplishments, to maintain an appropriate physical setting, and to encourage individual student-teacher conferences about independent study.

Preparation of Students

Orientation of students to the independent study program should occur, at least to some extent, while they are still in feeder schools and, to a greater extent, after they reach the high school. This orientation may include a specifically organized program for all students. A less formal, but equally important, orientation may be conducted by teachers as a part of the regular classroom activities.

Individual students who are not operating effectively in the I.S. program need to receive special attention. Counselors may provide some assistance to these students. Various means should also be used to increase individual contact between the student and his own teachers.

Supervision of Students

Because the students involved in independent study are adolescents with varying characteristics, some supervision is necessary. Non-certified personnel should be utilized to some extent for this supervision. They should be selected because of their ability to relate effectively to adolescents and because of their background in appropriate academic areas.

Physical Facilities

Independent study physical facilities need to provide students with ready access to (1) printed and AV materials, (2) suitable laboratory facilities, (3) an atmosphere which is conducive to study, (4) reasonable privacy for study, and (5) opportunities to work together in groups. Specially built facilities are seldom necessary. Emphasis should be placed on maximum use of existing facilities, remodeling them as necessary.

Material and Human Resources

Students' interests and abilities will cover a broad range and this breadth must be reflected in the available resources for I. S. These resources should include printed materials, AV materials, and personnel. These resources need to be readily accessible to students with a minimum of red tape and a maximum of encouragement and assistance. Special effort should be made to encourage discussion between teachers and students about independent study activities.

Evaluation

Students need help in evaluating their progress toward both short-range and long-range objectives in the independent study program. This necessity again focuses attention on the amount and the quality of individual student-teacher conferences.

Procedures should also be established for evaluating the effectiveness of the total I. S. program. These may include such techniques as analysis of test scores, follow-up of graduates, interviews, surveys, and observations.

Staff In-Service Activities

Major factors in the success of an independent study program are the understanding of program objectives developed by the staff and the development of the necessary teaching skills to achieve these objectives. Because of this, major emphasis needs to be placed on in-service work, particularly in the early stages of program development and implementation.

Recommendation for Further Study

This study was designed to identify general organizational characteristics which seem to have a bearing on the success of independent study programs. At least 11 of the 12 areas investigated seem to affect the quality of the programs. In no area does this study thoroughly investigate all of the ramifications. Major assistance could be provided practitioners by a more comprehensive investigation of any or all of the characteristic areas used as the organizational basis for this study.

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APPENDICES

APPENDIX A

December 1, 1965

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Dear Sir:

I am presently involved in a doctoral study of independent study programs under the direction of Dr. Arthur C. Hearn, Professor of Secondary Education, and with the cooperation of Dr. J. Lloyd Trump, Associate Director of the National Association of Secondary-School Principals.

The study will attempt to discover the characteristics of "successful" independent study programs, particularly those involving more than just the academically talented. By "independent study" we are referring to the kind of program which usually is a part of the large group, small group, independent study school organization. However, the school need not be involved in the large group, small group, flexible scheduling parts of the organization as long as students have periods of time during the regular school day when they are not assigned to regular classes, but rather have unassigned time during which they may pursue either assigned or unassigned studies on their own.

This study will eventually narrow down to an intensive case study of ten programs, but right now we must identify the total population. We are interested in schools where at least 50 percent of the students spend at least 20 percent of their in-school time in independent study. The schools should contain at least grades 10, 11, and 12, but may also contain other grades.

We would like your assistance in locating schools in your state which should be investigated to see if they fit the limits of this study. Enclosed is a form on which we would like you to enter the names and addresses of schools which should be considered.

If you are in doubt as to whether or not a particular school meets the criteria listed above, please list them anyway as we will contact all schools to see if they actually do fall within the limits of the study.

We appreciate your assistance in identifying this population.

Sincerely yours,

Marvin L. Evans

MLE:dlw
Enclosures

On the following form please list high schools in your state having independent study programs in which at least 50 percent of the students spend at least 20 percent of their in-school time in the program.

Name of School	Address

APPENDIX B

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Dear Sir:

We are in the process of setting up a research study of secondary school independent study programs. Our task, right now, is to identify schools whose programs fit within the definitions of this study.

Dr. J. Lloyd Trump, Stanford University School of Education, the State Directors of Secondary Education, and our own readings have each suggested schools with independent study programs that should be queried to see if they fall within our definitions. Your school is one of those suggested.

By answering the following six questions you will enable us to determine whether or not your program does fall within the framework we have established. After the total population has been identified, the major collection of data will be done in ten schools. The final results should indicate some guidelines which all secondary schools may use to aid in the improvement of existing independent study programs or the establishment of new programs.

We very much appreciate your taking time to respond to the following six questions. Space has been provided at the end of each question for your answer and any additional comments that you feel might be helpful. When you have completed your answers, please return the entire letter in the enclosed, self-addressed envelope.

Question I - Does your independent study program fit within the following general definition?

> Students have time during the regular school day assigned to independent study rather than to regular classes. During this time they may pursue study interests of their own or complete teacher assigned work. The program is characterized by freedom from constant supervision and implies the belief that all students possess potentialities for self-discipline, self-initiative, resourcefulness, productivity, and self-evaluation. (This program differs from the usual study hall in that students have greater access to a variety of material and human resources and less restrictions on their movements.)

Our independent study program does fit within this definition. ____

Our independent study program does not fit within this definition. _____

Comments____

____

If your answer to "Question I" was an unqualified NO do not complete the remainder of the questions, but please return the letter. If your answer was YES or a qualified NO please complete the remaining questions.

Question II - What is your school enrollment in each of grades 9, 10, 11, and 12?

Grade 9 ______, Grade 10 ______, Grade 11 ______, Grade 12 ______

Comments____

____

Question III - Approximately what percentage of your students in each of grades 9, 10, 11, and 12 participate in the independent study program?

Grade 9 ______, Grade 10 ______, Grade 11 ______, Grade 12 ______

Comments____

____

Question IV - Approximately what percentage of a student's in-school time is spent in independent study in each of grades 9, 10, 11, and 12?

Grade 9 ______, Grade 10 ______, Grade 11 ______, Grade 12 ______

Comments ____

____

Question V - How long has your independent study program actually been in operation? (Include this year in your answer.)

___________ years.

Comments ____

____

Question VI - In terms of general academic aptitude, what ability groups participate in the independent study program? (Put a check mark in each of the appropriate spaces.)

Slow ______________, Average ______________, Fast ______________

Comments ____

____

Your answers to the above questions will enable us to identify the population which will be a part of our study. We do appreciate the time you have taken to respond.

Sincerely yours,

Marvin L. Evans

MLE:dlw
Enclosure

APPENDIX C

January 18, 1966

Dr. J. Lloyd Trump
Associate Secretary
NASSP
1201 16th Street N. W.
Washington, D. C. 20036

Dear Dr. Trump:

Since last communicating with you in October, 1965, I have moved ahead with my plans for investigating ten selected high school independent study programs. As you might have expected it has been necessary to make some adjustments in the research design, although the basic structure remains unchanged.

It is in connection with your expression of willingness to serve on a panel of experts, which now includes Dr. Lloyd Michael, Dr. J. Paul Anderson, Dr. Robert Bush, and Dr. Dwight Allen, that I am now contacting you.

As you may recall, the study will compare the characteristics of five successful and five less successful high school independent study programs. Essentially, I am attempting to identify the program characteristics represented in each quality group and determine the relationships between these characteristics and the effectiveness of the programs. The task of the panel is to assist in placing programs in the two quality groups.

The study is limited to schools which contain some combination of grades 9, 10, 11, and 12 and have at least 50 percent of their senior class active in the independent study program. I have also eliminated programs which have only average and fast students involved. Because of these limitations there have been 23 programs identified rather than the 40 I had hoped for. As a result of this smaller population, it seemed advisable to make some adjustments in the procedure for making the final selection of the ten schools to be studied. In the first letter to you I had proposed that you nominate, in rank order, eight successful and ten less successful programs. This would have left a buffer group of some 22 programs separating your two groups of nominees. Because this buffer group has been reduced to five, and because you may not be familiar enough with all of the programs in the population to consider them for nomination, it seemed advisable to get your recommendations in a somewhat different form.

I have now prepared a sheet for each identified program on which provision has been made for recording the following kinds of information.

1. Your sources of knowledge about the quality of that school's independent study program. (In most cases you will probably want to check more than one box.)
2. Your evaluation of the extent to which students in that school successfully achieve each of six objectives.
3. An overall evaluation of the relative success of that school's total independent study program.
4. Comments about that school and the quality of its independent study program that you believe might aid in placing it in the proper quality group or in collecting meaningful data about its characteristics may be written on the back of each sheet.

There are a few extra sheets included which may be used to add any additional programs which you think might properly fit into this study.

At the risk of being repetitious, let me assure you that this information will be held in strict confidence. The schools to be studied will not be informed as to their relative position and will not be identified with any quality rating in the dissertation.

Because I hope to start my data collecting trips to the schools on March 19, and because of the time needed to make all the necessary arrangements with the schools to be studied, I hope to select the final sample about February 1. I have enclosed an envelope in which the materials may be returned.

I will, of course, supply you with a report of the findings of this study as well as additional information of interest which might not be appropriate for the formal report. (For example, I now have information on about 75 schools which operate some kind of an independent study program.)

I realize that the 45 minutes to an hour necessary to record this information is a major imposition on your already limited time. I am very appreciative. I do believe that as a result of your help, and that of others who are also involved, that some worthwhile data will be made available to the profession.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

P.S. The screening criteria used in selecting the schools required that the independent study program be in at least its second year of operation.

SCHOOL____________________ADDRESS________________

PRINCIPAL______________________________

Please indicate your sources of knowledge about the quality of the independent study program in this school.

- ☐ Have visited the school.
- ☐ Have highly reliable reports from others.
- ☐ Have adequate reports from others.
- ☐ Have seen objective data pertaining to the level of success of this program.
- ☐ Have read of the school's independent study program or have received hearsay information.
- ☐ Have no qualitive knowledge of this program.

Please indicate the extent to which you believe students in this school have successfully achieved the following objectives. (Circle the most appropriate answer.)

Students accept individual responsibility for learning rather than merely following the directions of others, i.e., are motivated to identify and attack problems.	Very much Considerably Moderately Little Don't know
Students attempt creative work.	Very much Considerably Moderately Little Don't know
Students evaluate their own learning.	Very much Considerably Moderately Little Don't know
Students make effective use of human and material resources in their learning activities.	Very much Considerably Moderately Little Don't know

Students make productive use of independent study time.	Very much Considerably Moderately Little Don't know
Students accept, successfully, responsibility for their own conduct during independent study time.	Very much Considerably Moderately Little Don't know
By comparing this independent study program with others with which you are familiar please give one overall indication of this program's relative success in getting students to perceive worthwhile things to do, personalize learning, exercise self-discipline, make use of material and human resources, produce results, and strive for improvement.	Outstanding Above average Average Below average Weak

APPENDIX D

February 26, 1966

Dear Dr.

You may recall having completed a short questionnaire for us in December or January regarding the nature of your independent study program. We explained that we were in the process of setting up a research study designed to identify those characteristics which lead to successful independent study programs.

We have made a nation-wide search to identify programs which fit the definitions in the study. This involved contacts with every state department director of secondary education, several colleges and universities, and about 150 individual high schools. The names of the appropriate schools were then submitted to a panel of experts consisting of Dr. J. Lloyd Trump, Dr. Robert Bush, Dr. Dwight Allen, Dr. Lloyd Michael, and Dr. J. Paul Anderson. As a result of their recommendations ten schools have been identified in which we will like to do our actual collection of data.

Your school is one of the ten selected.

We anticipate that, as a result of this study, guidelines to successful independent study programs can be made available both to schools now involved in this kind of activity and to those considering involvement. More specifically, we will be collecting data on 14 aspects (i.e., characteristic areas) of each of the ten independent study programs. (See the enclosed Table I for a brief description of these areas.) As a participating school you will, of course, receive a complete copy of the final report. In addition to this, and perhaps of equal value, we hope to collect other information which is not a part of the formal study but which will be made available to you. This might include techniques which have been effective with the students, staff, or community; how particular problems have been resolved; unique facilities, equipment or materials; or any other information items which might be useful to people on the "firing line."

The necessary effort on the part of your school is as follows:

1. Complete the enclosed information sheet and return it to us immediately.
2. Supply additional information, if it is necessary, to aid in organizing the visitation.
3. Host a three day visit in your school by myself during which time data will be collected from administrators, teachers, students and certain specialists. Following is a possible schedule of activities for those three days.

First Day:

a. A three hour interview with an administrator who is thoroughly familiar with the development and operation of the independent study program. This interview does need to precede the other collection of data.
b. A one hour meeting with the administrative staff. It will take less than half an hour to collect the data and the remaining time can be used to share information with you about other programs I have seen.
c. A one and one half hour interview with the librarian.
d. A one and one half hour meeting with the faculty after school. (Either first or second day)
e. Sometime during the first day, by referring to student schedules and I. Q. test scores, 48 students need to be identified from each class. This should take about two hours and some help from a counselor or secretary who knows your records would be very helpful.

Second and Third Days: (Very flexible)

a. One hour with each group of 48 students during which time they will complete a questionnaire. This is probably the greatest imposition since it will probably require some loss of class time by those involved.
b. A one and one half hour interview with the staff member responsible for your audio visual equipment and materials.
c. This leaves about one full day for observations and the sharing with you of information about other independent study programs I have observed.

We hope to complete the collection of data for this study during the current school year. This means that we must begin our visitations by the fourth week in March. This also means that we need to hear from you as soon as possible to allow time to establish our data collection schedule and make the necessary arrangements. Enclosed you will find a sheet with which to respond and which also requests certain kinds of information needed to set up the study in your school. This sheet, along with any appropriate enclosures may be returned in the envelope provided.

We are pleased that your school was one of those selected by our panel of experts and hope that you will be able to participate in the study.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon

INFORMATION SHEET

to be returned to

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Name of school______________________________

Complete address____________________________

____

____

Telephone number____________________________

Name of principal___________________________

The name of an administrator who is thoroughly familiar with the development and operation of your independent study program. This individual would be my contact in the school to help arrange the visitation and be a prime source of information during the visitation.

Name_____________________________________

Position___________________________________

The complete name and description of the latest group I. Q. test(s) from which you have scores for your students. Please indicate for each grade level.

9th______________________________________

____

10th_____________________________________

____

11th____

____

12th____

____

Please return, with this sheet, a copy of your school calendar covering March 14 through May 27. Indicate days on which your school is not in session and days which would not be satisfactory for the visitation because of major activities, etc.

The following information would be extremely helpful in preparing for the visitation and can, perhaps, be sent in a separate mailing.

1. A roster of your staff and their assignments.
2. A map of your building.
3. Any printed literature describing your independent study program.
4. Sample copies of what you would consider to be typical student and teacher schedules.

Name and position of the person completing this form:

____________________ ____________________

Name Position

APPENDIX E

STUDENT'S ANSWER SHEETS

Student Number ___ ___ ___ ___ ___
(1) (2) (3) (4) (5)

School 1 2 3 4 5 6 7 8 9 10

Group 1 2 3 4 5 6 7 8 9 10 11 12

---

(6) What year are you in school?	1	Senior
	2	Junior
	3	Sophomore
	4	Freshman
(7) Male or female?	1	Male
	2	Female
(8) Approximately what percentage of your time during the school day is unscheduled or assigned to independent study time?	1	None
	2	10%
	3	15%
	4	20%
	5	25%
	6	30%
	7	35%
	8	40%
	9	45%
	10	50% or more
(9) Did you enter this school from a grade school or junior high school in this district?	1	YES
	2	NO
(10) How many years have you been assigned independent study time in this school?	1	One
	2	Two
	3	Three
	4	Four

The following questions are designed to get information about the independent study program in your school. You will be given an explanation of the kinds of information we are looking for before you begin work on each section. Please do not start any section until you have received the explanation.

When you are asked to choose between YES or NO or between Greatly, Moderately, Little, or Not at all, circle the number in front of the answer which most closely expresses your opinion. In a few cases you will be asked to fill in a blank with an answer or write a short paragraph.

In most cases space has been provided so that you may enlarge upon an answer if you feel this would be helpful to us. Please feel free to ask for clarification at any time if a question is not clear.

STUDENTS

Program Objectives

(15) To what extent have your teachers talked with you about why you have so much time during the school day when you are not required to be in class?	1 Greatly 2 Moderately 3 Little 4 Not at all

To what extent do you think the following are the purposes of your independent study time?

(16) To give you the opportunity to learn to do things on your own	1 Greatly 2 Moderately 3 Little 4 Not at all
(17) To give you more time to learn about the things you are interested in	1 Greatly 2 Moderately 3 Little 4 Not at all
(18) To give the teachers more time to prepare for their classes	1 Greatly 2 Moderately 3 Little 4 Not at all
(19) To give you time to do the assignments your teachers have given you	1 Greatly 2 Moderately 3 Little 4 Not at all
(20) To give you more time to relax	1 Greatly 2 Moderately 3 Little 4 Not at all

STUDENTS - 2

---

(21) Other ______________________________	1 Greatly 2 Moderately 3 Little 4 Not at all
______________________________	

Independent Study Program Organization

Write a paragraph telling what a student's responsibilities are in the independent study program. Include such things as conduct, supervision of other students, choosing how you will spend your time, what you will study, etc. You may use the back of the paper also.

Origin of Study Activities

(These should add up to 100%)

(22) What percentage of your independent study time is spent doing specific assignments your teachers have given you? (That is, read certain pages in a certain book or write a paper on a particular topic.)	**1 10%** **2 20%** **3 30%** **4 40%** **5 50%** **6 60%** **7 70%** **8 80%** **9 90%** **10 None**

STUDENTS - 3

(23) What percentage of your independent study time is spent doing more general kinds of assignments your teachers have given you? (That is, "Do some reading on this topic," or "Write a paper on a topic of your choice.")

1 10%
2 20%
3 25%
4 30%
5 35%
6 40%
7 50%
8 60%
9 70%
10 80%
11 None

(24) What percentage of your independent study time is spent studying things just because you want to do them?

1 10%
2 20%
3 25%
4 30%
5 35%
6 40%
7 50%
8 60%
9 70%
10 80%
11 None

(25) What percentage of your independent study time is spent taking part in the activity program? (That is, sports, student government, clubs, etc.)

1 5%
2 10%
3 15%
4 20%
5 25%
6 30%
7 35%
8 40%
9 45%
10 50%
11 None

STUDENTS - 4

(26) What percentage of your independent study time is spent just "goofing off?"

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 None

(27) What percentage of your independent study time is spent studying things you and your teachers have agreed upon during a face-to-face conference.

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

(28) What percentage of your independent study time is spent doing something not included in the six questions before this?

What?

1 5%
2 10%
3 15%
4 20%
5 25%
6 30%
7 35%
8 40%
9 45%
10 50% or more
11 None

STUDENTS - 5

Motivation Techniques

To what extent are your activities during independent study time done because of:

(29) Pressure of grades

1 Greatly
2 Moderately
3 Little
4 Not at all

(30) Other kinds of teacher pressure

1 Greatly
2 Moderately
3 Little
4 Not at all

(31) Your own interest in the work you are doing

1 Greatly
2 Moderately
3 Little
4 Not at all

(32) Being observed by teachers or other staff members

1 Greatly
2 Moderately
3 Little
4 Not at all

(33) Pressure from other students

1 Greatly
2 Moderately
3 Little
4 Not at all

(34) Pressure from parents

1 Greatly
2 Moderately
3 Little
4 Not at all

(35) Other	1 Greatly 2 Moderately 3 Little 4 Not at all

Preparation of Students

(36) To what extent did you understand what you were to do during your independent study time before you started in this school?	1 Greatly 2 Moderately 3 Little 4 Not at all
(37) To what extent did the teachers in this school help you to understand the independent study program?	1 Greatly 2 Moderately 3 Little 4 Not at all
(38) To what extent did the other students in this school help you to understand the independent study program?	1 Greatly 2 Moderately 3 Little 4 Not at all

APPENDIX F

TEACHER'S DATA SHEETS

(1) School 1 2 3 4 5 6 7 8 9 10

(5-12) Subjects taught	Subject	Percent of your time
	____________________	________%
	____________________	________%
	____________________	________%
	____________________	________%

(13-16) Percentage of your students who are:

9th graders ________% 11th graders ________%

10th graders ________% 12th graders ________%

(17) Number of years teaching experience ________

(18) Number of years in this school ________

(19) Number of years taught in schools without independent study programs ________

(20) Number of years taught in this school with the independent study program ________

(21) Male ________ Female ________

The following questions are designed to get information about the independent study program in your school. You will be given an explanation of the kinds of information we are looking for before you begin work on each section. Please do not start any section until you have received the explanation.

When YES or NO responses or qualitative judgments are requested, circle the number in front of the answer which most closely reflects your judgment. In a few cases you will be asked to fill in a blank with an answer or write a short paragraph.

In most cases space has been provided so that you may enlarge upon an answer if you feel this would be helpful to us. Please feel free to ask for clarification at any time if a question is not clear.

TEACHERS

Program Objectives

(22) Are there written objectives for the independent study program in your school?	1 YES 2 NO
(23) Do you have your own copy?	1 YES 2 NO
(24) If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	1 YES 2 NO
(25) To what extent are you knowledgeable about the written or understood objectives?	1 Greatly 2 Moderately 3 Little 4 Not at all
(26) To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	1 Greatly 2 Moderately 3 Little 4 Not at all
(27) To what extent do you apply these in your work with students?	1 Greatly 2 Moderately 3 Little 4 Not at all

To what extent has each of the following been emphasized to you as being an important objective of the independent study program in your school?

(28) Develop creativity	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 2

(29) Develop inquiring mind	1 Greatly 2 Moderately 3 Little 4 Not at all
(30) Develop self-discipline	1 Greatly 2 Moderately 3 Little 4 Not at all
(31) Develop self-initiative	1 Greatly 2 Moderately 3 Little 4 Not at all
(32) Develop resourcefulness	1 Greatly 2 Moderately 3 Little 4 Not at all
(33) Develop self-evaluation skills	1 Greatly 2 Moderately 3 Little 4 Not at all
(34) Develop research skills	1 Greatly 2 Moderately 3 Little 4 Not at all
(35) Provide for individual differences	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 3

(36) Free teacher's time	1 Greatly 2 Moderately 3 Little 4 Not at all
(37) Other ____________________	1 Greatly 2 Moderately 3 Little 4 Not at all
(38) Other ____________________	1 Greatly 2 Moderately 3 Little 4 Not at all
(39) Other ____________________	1 Greatly 2 Moderately 3 Little 4 Not at all

Leadership

To what extent does leadership in the independent study program emanate from the following?

(40) Principal	1 Greatly 2 Moderately 3 Little 4 Not at all
(41) Designated director	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 4

---

(42) Other administrator

Who? ____________________

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(43) Department chairmen

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(44) A specific teacher

Who? ____________________

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(45) A specific group of teachers

Who? ____________________

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(46) Other ____________________

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(47) Other ____________________

1 Greatly
2 Moderately
3 Little
4 Not at all

TEACHERS - 5

Independent Study Program Organization

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

(48) Building administration	1 Greatly 2 Moderately 3 Little 4 Not at all
(49) Department chairmen	1 Greatly 2 Moderately 3 Little 4 Not at all
(50) Teachers	1 Greatly 2 Moderately 3 Little 4 Not at all
(51) Students	1 Greatly 2 Moderately 3 Little 4 Not at all
(52) Librarian	1 Greatly 2 Moderately 3 Little 4 Not at all
(53) Non-certified personnel	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 6

---

(54) District supervisors or directors	1 Greatly 2 Moderately 3 Little 4 Not at all
(55) Other Who?____________________	1 Greatly 2 Moderately 3 Little 4 Not at all

Please write a summary of the responsibilities of teachers in the independent study program.

Origin of Study Activities

(56) To what extent do you believe the student's study activities should originate from classroom assignments?	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 7

(Answers to questions 57-62 should add up to 100%)

(57) What percentage of a student's independent study time is spent doing specific assignments teachers have given him?

1	10%
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	None

---

(58) What percentage of a student's time is spent doing more general kinds of assignments teachers have given him? (That is, "Do some reading on this topic," or "Write a paper on a topic of your choice.")

1	10%
2	20%
3	25%
4	30%
5	35%
6	40%
7	50%
8	60%
9	70%
10	80%
11	None

---

(59) What percentage of a student's independent study time is spent studying things just because the student wants to do them?

1	10%
2	20%
3	25%
4	30%
5	35%
6	40%
7	50%
8	60%
9	70%
10	80%
11	None

TEACHERS - 8

---

(60) What percentage of a student's independent study time is spent taking part in the activity program? (That is, sports, student government, clubs, etc.)

1 5%
2 10%
3 15%
4 20%
5 25%
6 30%
7 35%
8 40%
9 45%
10 50%
11 None

---

(61) What percentage of a student's independent study time is spent just "goofing off?"

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 None

---

(62) What percentage of a student's independent study time is spent doing something not included in the five questions before this?

1 5%
2 10%
3 15%
4 20%
5 25%
6 30%
7 35%
8 40%
9 45%
10 50%
11 None

(Answers to questions 63-67 should add up to 100%)

(63) What percentage of the independent study time assignments you give students originate in the large group?

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

(64) What percentage of the independent study time assignments you give students originate in the small group?

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

(65) What percentage of the independent study time assignments you give students originate in medium or traditional size classes?

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

---

(66) What percentage of the independent study time assignments you give students originate in one-on-one conferences with the students?

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

---

(67) What percentage of the independent study time assignments you give students originate in some way not included in the four preceeding questions?

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

Motivation Techniques

(68) To what extent do you use grades to motivate student interest in independent study work?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(69) To what extent do you depend on the student's own interests and self-motivation to encourage efforts in independent study?

1 Greatly
2 Moderately
3 Little
4 Not at all

TEACHERS - 11

---

(70) To what extent do you deliberately build into the student's classroom experiences factors designed to stimulate interest in independent study activities?

1 Greatly
2 Moderately
3 Little
4 Not at all

How? ______________________________

Indicate other motivation techniques you use to motivate student interest in independent study activities.

(71) ______________________________

____

____

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(72) ______________________________

____

____

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(73) ______________________________

____

____

1 Greatly
2 Moderately
3 Little
4 Not at all

Preparation of Students

(74) To what extent do your feeder schools prepare students to participate effectively in your independent study program?

1 Greatly
2 Moderately
3 Little
4 Not at all

(75) To what extent do the feeder schools provide a special program to help prepare students for the independent study program?

1 Greatly
2 Moderately
3 Little
4 Not at all

(76) To what extent do you devote class time to helping prepare students to make good use of independent study time?

1 Greatly
2 Moderately
3 Little
4 Not at all

(77) To what extent are you available to work individually with students concerning their independent study work?

1 Greatly
2 Moderately
3 Little
4 Not at all

(78) To what extent do students take advantage of the opportunity to work with you individually, without coercion?

1 Greatly
2 Moderately
3 Little
4 Not at all

(79) To what extent do you force students to spend time with you individually, concerning independent study work?

How? ______________________________

1 Greatly
2 Moderately
3 Little
4 Not at all

Supervision of Students

(22) What percentage of your non-instructional time is used to supervise students engaged in independent study?

1 10%
2 20%
3 25%
4 30%
5 35%
6 40%
7 50%
8 60%
9 70%
10 80%
11 None

Material and Human Resources

(23) To what extent are students encouraged to use staff members, from whom they are not taking classes, as resource people?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(24) To what extent do students use staff members, from whom they are not taking classes, as resource people: Why or why not?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(25) Is there a formally organized program to familitate and/or motivate student use of staff members as resource people?

1 YES
2 NO

Describe ______________________________

---

(26) To what extent are students encouraged to use people in the community as resource people?	1 Greatly 2 Moderately 3 Little 4 Not at all
(27) To what extent do students use people in the community as resource people?	1 Greatly 2 Moderately 3 Little 4 Not at all
(28) Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people? Describe ____________________	1 YES 2 NO
We have already talked with the people in charge of library and audio visual resources. With the exception of those two areas and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study? (29) Who or what? ____________________	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 15

Attitudes Toward Program

We would like to know what you think about the following statements. Indicate the extent to which you agree or disagree by placing a check mark in the appropriate box

1. As compared to students in schools without independent study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
(30) Develop creativity						
(31) Develop an inquiring mind						
(32) Develop self-discipline						
(33) Develop self-initiative						
(34) Develop resourcefulness						
(35) Develop self-evaluation skills						
(36) Develop research skills						
(37) Be accomodated for individual differences						

2. As compared to schools without independent study programs, this school:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
(38) Makes better use of the teacher's time						
(39) Has fewer classroom discipline problems						
(40) Has less serious classroom discipline problems						
(41) Has fewer outside of class discipline problems						
(42) Has less serious outside of class discipline problems						

(43) A regular and systematic procedure is followed to evaluate the success of the independent study program.	**1 YES** **2 NO**
(44) To what extent is teacher effectiveness in the independent study program evaluated? How? ______________________________	**1 Greatly** **2 Moderately** **3 Little** **4 Not at all**
(45) To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives? How? ______________________________	**1 Greatly** **2 Moderately** **3 Little** **4 Not at all**
(46) To what extent are counselors involved in evaluation of student progress? How? ______________________________	**1 Greatly** **2 Moderately** **3 Little** **4 Not at all**

(47) To what extent do you feel that a better job of educating students is done with the independent study program than could be done without it?	1 Greatly 2 Moderately 3 Little 4 Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time, to improve the independent study program by the following means?

(48) Regular faculty meetings	1 Greatly 2 Moderately 3 Little 4 Not at all
(49) Special meetings during the school year	1 Greatly 2 Moderately 3 Little 4 Not at all
(50) Extended Contracts	1 Greatly 2 Moderately 3 Little 4 Not at all
(51) Individual Conferences	1 Greatly 2 Moderately 3 Little 4 Not at all
(52) University workshops	1 Greatly 2 Moderately 3 Little 4 Not at all
(53) Use of resource people	1 Greatly 2 Moderately 3 Little 4 Not at all

---

(54) Special assistance to new teachers

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(55) Printed materials - commercial

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(56) Printed materials - staff devised

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(57) Assistance from other teachers

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(58) Other ______________________________

1 Greatly
2 Moderately
3 Little
4 Not at all

We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate, in essay or list form, your likes, dislikes and evaluations of the program or any of its parts.

APPENDIX G

ADMINISTRATIVE DIRECTOR'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Official title____

Duties:

Responsibility in independent study program:

Professional experience:

This is the instrument which will guide the interview with the functional director of the independent study program. The interview will be conducted and recorded by the researcher.

ADMINISTRATIVE DIRECTOR

Program Objectives

1. Are there written objectives for the independent study program in this school? (Get a copy)	YES NO
2. If not, are there specifically recognized objectives?	YES NO
3. To what extent have these been discussed with the staff?	Greatly Moderately Little Not at all
4. To what extent is the staff knowledgeable about them?	Greatly Moderately Little Not at all
5. To what extent do they apply these in their work?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to the staff as being an important objective of the independent study program in your school?

6. Develop creativity	Greatly Moderately Little Not at all
7. Develop inquiring mind	Greatly Moderately Little Not at all

ADMINISTRATIVE DIRECTOR - 2

8.	Develop self-discipline	Greatly Moderately Little Not at all
9.	Develop self-initiative	Greatly Moderately Little Not at all
10.	Develop resourcefulness	Greatly Moderately Little Not at all
11.	Develop self-evaluation skills	Greatly Moderately Little Not at all
12.	Develop research skills	Greatly Moderately Little Not at all
13.	Provide for individual differences	Greatly Moderately Little Not at all
14.	Free the teacher's time	Greatly Moderately Little Not at all

15. Other ______________________	Greatly Moderately Little Not at all
16. Other ______________________	Greatly Moderately Little Not at all
17. Other ______________________	Greatly Moderately Little Not at all

Leadership

18. Is one individual charged with supplying leadership for the independent study program? Who? ______________________	YES NO
19. Does he have time allotted? How much? ______________________	YES NO
20. Is a particular group charged with this responsibility? Who? ______________________	YES NO

ADMINISTRATIVE DIRECTOR - 4

To what extent does leadership in the independent study program emanate from the following?

21. Principal	Greatly Moderately Little Not at all
22. Designated director	Greatly Moderately Little Not at all
23. Other administrator Who? ______________________	Greatly Moderately Little Not at all
24. Department chairmen	Greatly Moderately Little Not at all
25. A specific teacher Who? ______________________	Greatly Moderately Little Not at all
26. A specific group of teachers Who? ______________________	Greatly Moderately Little Not at all

---

27. Other ______________________________

Greatly
Moderately
Little
Not at all

---

28. Other ______________________________

Greatly
Moderately
Little
Not at all

General Organization for Instruction

29. Do you operate on a modular schedule?

YES
NO

---

30. Length of modules? ________ minutes

---

31. Number of modules per day? ________

Typical number of minutes per week of large group for

32. seniors ________
33. juniors ________
34. sophomores ________
35. freshmen ________
36. teachers ________

Typical number of minutes per week of small group for

37. seniors ________
38. juniors ________
39. sophomores ________
40. freshmen ________
41. teachers ________

Typical number of minutes per week of independent study for

42. seniors ________
43. juniors ________
44. sophomores ________
45. freshmen ________
46. teachers ________

ADMINISTRATIVE DIRECTOR - 6

Typical number of minutes per week of laboratory for	47. seniors	________
	48. juniors	________
	49. sophomores	________
	50. freshmen	________
	51. teachers	________

Comments on the preceeding four questions

---

52. Does your program include team teaching ? YES
NO

Explanation

---

53. Do you operate on a traditional schedule ? YES
NO

---

54. Number of periods per week ________

---

55. Length of periods ________

---

56. How is independent study time scheduled for students ?

Number of minutes per week consumed for required courses for

57. seniors ________
58. juniors ________
59. sophomores ________
60. freshmen ________

Number of minutes per week consumed for forced electives for

61. seniors ________
62. juniors ________
63. sophomores ________
64. freshmen ________

65. How much time per week does the typical teacher have during which he has no specific assignment? ____________________

(If possible, get copies of schedules of students and teachers used in the sample.)

Independent Study Program Organization

What percentage of a student's time is available for independent study in each ability group at each grade level?

66. senior - high ____%
67. senior - average ____%
68. senior - low ____%
69. junior - high ____%
70. junior - average ____%
71. junior - low ____%
72. sophomore - high ____%
73. sophomore - average ____%
74. sophomore - low ____%
75. freshman - high ____%
76. freshman - average ____%
77. freshman - low ____%

78. Are students moved in or out of the program for disciplinary reasons?
YES
NO

---

79. Are students moved in or out of the program because of achievement record? YES NO

---

80. Are students moved in or out of the program for any other reason? YES NO

If yes, what reasons? (explain)

---

81. Who is in charge of study centers? (General organization and administration)

---

82. Are non-certified personnel used in connection with the independent study program? YES NO

How many and in what ways? ______________________________

---

83. Who directs these non-certified people?

ADMINISTRATIVE DIRECTOR - 9

84. What are the independent study program responsibilities of department chairmen?

85. What are the independent study program responsibilities of teachers?

86. What are the independent study program responsibilites of students?

87. What are the independent study program responsibilities of the librarian?

88. What are the independent study program responsibilities of the audio visual director?

89. Are small blocks of independent study time avoided? Explain

ADMINISTRATIVE DIRECTOR - 10

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

90. Building administration	Greatly Moderately Little Not at all
91. Department chairmen	Greatly Moderately Little Not at all
92. Teachers	Greatly Moderately Little Not at all
93. Students	Greatly Moderately Little Not at all
94. Librarian	Greatly Moderately Little Not at all
95. Non-certified personnel	Greatly Moderately Little Not at all
96. District supervisors or directors	Greatly Moderately Little Not at all

97. Other ______________________	Greatly Moderately Little Not at all

Origin of Study Activities

98. According to the objectives of the program, to what extent should the students' independent study activities result from classroom assignments ?	Greatly Moderately Little Not at all

Motivation Techniques

99. Are students' independent study efforts evaluated to determine whether or not they should continue to have independent study time ?	YES NO

If so, how does this system operate ?

100. What procedures are built into the program to stimulate student interest in independent study work ?

---

101. Is the student council (or other student group) used to stimulate cooperation and/or motivation in the independent study program?

YES
NO

Describe

Preparation of Students

102. To what extent do your feeder schools prepare students to participate effectively in your independent study program?

Greatly
Moderately
Little
Not at all

How?

---

103. To what extent do the feeder schools provide a special program to help prepare students for the independent study program?

Greatly
Moderately
Little
Not at all

---

104. Does this schools provide an orientation program, at least a part of which is devoted to the independent study program?

YES
NO

Describe ?

105. Is special assistance provided, on an organized basis, for students who are not making good use of independent study time?

YES
NO

Describe

Supervision of Students

106. Do students have to be in a particular place during their independent study time ?

YES
NO

107. Do students have to specify the place in which they will spend their independent study time ?

YES
NO

108. Is there a relaxation area for students to use during independent study time ?

YES
NO

109.	To what extent are students supervised in study areas ?	Greatly Moderately Little Not at all
	By whom ?	
110.	Teachers	Greatly Moderately Little Not at all
111.	Non-certified personnel	Greatly Moderately Little Not at all
112.	Other students	Greatly Moderately Little Not at all
113.	Other ____________________	Greatly Moderately Little Not at all
114.	Are students generally permitted to be in the halls during independent study time ?	YES NO
115.	Are students permitted to move between study areas at any time they choose ?	YES NO

---

116. Are students restricted to the school grounds during certain hours?

YES
NO

---

117. When and where is attendance taken?

---

118. (Look at use made of Morning bulletin, Bulletin boards, Rules and Regulations, Penalties, P. A. System, and handbook to help determine authoritarian-democratic posture)

Material and Human Resources

119. To what extent are students encouraged to use staff members, from whom they are not taking classes, as resource people?

Greatly
Moderately
Little
Not at all

---

120. To what extent do students use staff members, from whom they are not taking classes, as resource people? Why or why not?

Greatly
Moderately
Little
Not at all

121.	Is there a formally organized program to facilitate and/or motivate student use of staff members as resource people? Describe	YES NO
122.	To what extent are students encouraged to use people in the community as resource people?	Greatly Moderately Little Not at all
123.	To what extent do students use people in the community as resource people?	Greatly Moderately Little Not at all
124.	Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people? Describe	YES NO
125.	We will be talking with the people in charge of library and audio visual resources. With the exception of those two areas and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study? Who or what? ______________________	 Greatly Moderately Little Not at all

ADMINISTRATIVE DIRECTOR - 17

Attitudes Toward Program

We would like to know what you think about the following statements. Indicate the extent to which you agree or disagree by placing a check mark in the appropriate box.

1. As compared to students in schools without independent study programs our students have a better chance to:

126-133	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

2. As compared to schools without independent study programs, this school:

134-138	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

ADMINISTRATIVE DIRECTOR - 18

139. We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

Evaluation

140. A regular and systematic procedure is followed to evaluate the success of the independent study program.

YES
NO

---

141. How is the total independent study program evaluated?

---

142. To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives?

Greatly
Moderately
Little
Not at all

How?

---

143. How is individual pupil progress towards program and personal objectives evaluated?

---

144. To what extent are counselors involved in evaluation of student progress?

Greatly
Moderately
Little
Not at all

How?

145.	To what extent have graduates who have experienced the independent study program been more successful than those who have Not? Evidence?	Greatly Moderately Little Not at all
146.	To what extent have achievement test scores improved since the inception of the independent study program? Evidence?	Greatly Moderately Little Not at all
147.	To what extent have student grades improved since the inception of the independent study program? Evidence?	Greatly Moderately Little Not at all
148.	To what extent do you feel that a better job of educating students is done with the independent study program than could be done without it?	Greatly Moderately Little Not at all

---

149. To what extent is teacher effectiveness in the independent study program evaluated?

Greatly
Moderately
Little
Not at all

How?

Staff In-Service

To what extent are staff members given assistance, and/or time to improve the independent study program by the following means?

150. Regular faculty meetings

Greatly
Moderately
Little
Not at all

---

151. Special meetings during the school year

Greatly
Moderately
Little
Not at all

---

152. Extended contracts

Greatly
Moderately
Little
Not at all

---

153. Individual conferences

Greatly
Moderately
Little
Not at all

154.	University workshops	Greatly Moderately Little Not at all
155.	Use of resource people	Greatly Moderately Little Not at all
156.	Special assistance to new teachers	Greatly Moderately Little Not at all
157.	Assistance from other teachers	Greatly Moderately Little Not at all
158.	Printed materials - commercial	Greatly Moderately Little Not at all
159.	Printed materials - staff devised	Greatly Moderately Little Not at all
160.	Other ______________________________	Greatly Moderately Little Not at all

161. Is a particular person or group responsible for organizing independent study program in-service work? YES NO

Who?

School and Community

Indicate the percentage of graduates of your senior class who have entered the educational, occupational, or other categories listed below:

I. Educational

162. Programs leading to a bachelor's degree _____%

163. Terminal, trade, and vocational schools _____%

164. Apprenticeship programs _____%

165. Other _____%

II. Occupational

166. Clerical and kindred _____%

167. Sales _____%

168. Craftsmen and kindred _____%

169. Operatives and laborers _____%

170. Service workers _____%

171. Armed forces _____%

---

172. Other ____%

III. Other

173. Housewife ____%

174. Unemployed ____%

175. Unknown ____%

TOTAL 100%

---

176. Describe the procedure used in securing these data.

---

177. Describe briefly the general character of employment of adults in this community.

---

178. What is your source of information?

ADMINISTRATIVE DIRECTOR - 25

---

179. Describe, in general, the extent of the formal education of parents and other adults in the community.

---

180. What is your source of information?

APPENDIX H

ADMINISTRATOR'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Official title ________________________________

Please describe your duties and about what percentage of your time is spent at each duty.

Duty	Percentage
	100%

How many years have you held your current position (include this year)?

____

The following questions are designed to get information about the independent study program in your school. You will be given an explanation of the kinds of information we are looking for before you begin work on each section. Please do not start any section until you have received the explanation.

When YES or NO responses or qualitative judgments are requested, circle the answer which most closely reflects your judgment In a few cases you will be asked to fill in a blank with an answer or write a short paragraph.

In all cases space has been provided so that you may enlarge upon an answer if you feel this would be helpful to us. Please feel free to ask for clarification at any time if a question is not clear.

ADMINISTRATORS

Leadership

To what extent does leadership in the independent study program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all
Other administrator Who? ____________________	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
A specific teacher Who? ____________________	Greatly Moderately Little Not at all
A specific group of teachers Who? ____________________	Greatly Moderately Little Not at all

ADMINISTRATORS - 2

Other ______________________	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all

Attitudes Toward Program

We would like to know what you think about the following statements. Indicate the extent to which you agree or disagree by placing a check mark in the appropriate box.

1. As compared to students in schools without independent study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

ADMINISTRATORS - 3

---

2. As compared to schools without independent study programs, this school:

	Strongly Agree	Agree	No Differences	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3. We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

APPENDIX I

LIBRARIAN'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Number of years experience as a librarian ____________________

Number of years as a librarian in this school ____________________

Number of years as a librarian in schools
without independent study programs ____________________

Number of years as a librarian in this
school with the independent study program? ____________________

Male ________ Female ________

This is the instrument which will guide the interview with the building librarian. The interview will be conducted and recorded by the researcher.

LIBRARIAN

Program Objectives

Are there written objectives for the independent study program in your school?	YES NO
Do you have your own copy?	YES NO
If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	YES NO
To what extent are you knowledgeable about the written or understood objectives?	Greatly Moderately Little Not at all
To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	Greatly Moderately Little Not at all
To what extent do you apply these in your work with students?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to you as being an important objective of the independent study program in your school?

Develop creativity	Greatly Moderately Little Not at all

LIBRARIAN - 2

Develop inquiring mind	Greatly Moderately Little Not at all
Develop self-discipline	Greatly Moderately Little Not at all
Develop self-initiative	Greatly Moderately Little Not at all
Develop resourcefulness	Greatly Moderately Little Not at all
Develop self-evaluation skills	Greatly Moderately Little Not at all
Develop research skills	Greatly Moderately Little Not at all
Provide for individual differences	Greatly Moderately Little Not at all

LIBRARIAN - 3

Free the teacher's time	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all

Leadership

To what extent does leadership in the independent study program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all

LIBRARIAN - 4

Other administrator Who? ______________________	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
A specific teacher Who? ______________________	Greatly Moderately Little Not at all
A specific group of teachers Who? ______________________	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all
Other ______________________	Greatly Moderately Little Not at all

LIBRARIAN - 5

Independent Study Program Organization

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

Building administration	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
Teachers	Greatly Moderately Little Not at all
Students	Greatly Moderately Little Not at all
Librarian	Greatly Moderately Little Not at all
Non-certified personnel	Greatly Moderately Little Not at all

LIBRARIAN - 6

District supervisors or directors	Greatly Moderately Little Not at all
Other ____________________	Greatly Moderately Little Not at all

On the rest of this page and the back outline for me the responsibilities of the librarian in the independent study program.

LIBRARIAN - 7

Preparation of Students

To what extent do your feeder schools prepare students to participate effectively in your independent study program?	Greatly Moderately Little Not at all

How?

To what extent do your feeder schools provide a special program to help prepare students for the independent study program?	Greatly Moderately Little Not at all

---

Material and Human Resources

Do you have the necessary materials to be considered a standard library?	YES NO

Are any of these distributed to study areas outside of the library?	YES NO

If so, to what extent, how, and where?

LIBRARIAN - 8

What areas have been developed beyond the standard library level? (topics, reading levels, teacher developed materials)

Describe

Are any of these distributed to study areas outside of the library?	YES NO

If so, to what extent, how, and where?

Where and how can I see these?

Material and Human Resources

To what extent are students encouraged to use staff member, from whom they are not taking classes, as resource people?	Greatly Moderately Little Not at all
To what extent do students use staff members, from whom they are not taking classes, as resource people? Why or why not?	Greatly Moderately Little Not at all
Is there a formally organized program to facilitate and/or motivate student use of staff members as resource people? Describe	YES NO
To what extent are students encouraged to use people in the community as resource people?	Greatly Moderately Little Not at all
To what extent do students use people in the community as resource people?	Greatly Moderately Little Not at all

LIBRARIAN - 10

Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people?	YES NO

Describe

We have already talked with the person in charge of audio visual resources. With the exception of that area and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study?

Who or what? ______________________	Greatly
______________________	Moderately
______________________	Little
______________________	Not at all

Attitudes Toward Program

We would like to know what you think about the following statements. Indicate the extent to which you agree or disagree by placing a check mark in the appropriate box.

LIBRARIAN - 11

---

1. As compared to students in schools without independent study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness.						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

2. As compared to schools without independent study programs, this school:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3. We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

LIBRARIAN - 12

Evaluation

A regular and systematic procedure is followed to evaluate the success of the independent study program.	YES NO
To what extent is teacher effectiveness in the independent study program evaluated? How? ______________________________ ______________________________ ______________________________ ______________________________ ______________________________	Greatly Moderately Little Not at all
To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives? How? ______________________________ ______________________________ ______________________________ ______________________________ ______________________________ ______________________________ ______________________________ ______________________________	Greatly Moderately Little Not at all

LIBRARIAN - 13

To what extent are counselors involved in evaluation of student progress? How? ______________________________ ______________________________ ______________________________ ______________________________	Greatly Moderately Little Not at all
To what extent do you feel that a better job of educating students is done with the independent study program than could be done without it?	Greatly Moderately Little Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time to improve the independent study program by the following means?

Regular faculty meetings	Greatly Moderately Little Not at all
Special meetings during the school year	Greatly Moderately Little Not at all
Extended contracts	Greatly Moderately Little Not at all

LIBRARIAN - 14

Individual conferences	Greatly Moderately Little Not at all
University workshops	Greatly Moderately Little Not at all
Use of resource people	Greatly Moderately Little Not at all
Special assistance to new teachers	Greatly Moderately Little Not at all
Assistance from other teachers	Greatly Moderately Little Not at all
Printed materials - commercial	Greatly Moderately Little Not at all
Printed materials - staff devised	Greatly Moderately Little Not at all

LIBRARIAN - 15

Other ______________________	Greatly Moderately Little Not at all

APPENDIX J

AUDIO VISUAL DIRECTOR'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Number of years experience as an audio visual director ____________

Number of years as an audio visual director in this school ____________

Number of years as an audio visual director in schools without independent study programs ____________

Number of years as an audio visual director in this school with the independent study program? ____________

Male ________ Female ________

This is the instrument which will guide the interview with the building audio visual director. The interview will be conducted and recorded by the researcher.

AUDIO VISUAL DIRECTOR

Program Objectives

Are there written objectives for the independent study program in your school?	YES NO
Do you have your own copy?	YES NO
If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	YES NO
To what extent are you knowledgeable about the written or understood objectives?	Greatly Moderately Little Not at all
To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	Greatly Moderately Little Not at all
To what extent do you apply these in your work with students?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to you as being an important objective of the independent study program in your school?

Develop creativity	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 2

Develop inquiring mind	Greatly Moderately Little Not at all
Develop self-discipline	Greatly Moderately Little Not at all
Develop self-initiative	Greatly Moderately Little Not at all
Develop resourcefulness	Greatly Moderately Little Not at all
Develop self-evaluation skills	Greatly Moderately Little Not at all
Develop research skills	Greatly Moderately Little Not at all
Provide for individual differences	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 3

Free the teacher's time	Greatly Moderately Little Not at all
Other ________________	Greatly Moderately Little Not at all
Other ________________	Greatly Moderately Little Not at all
Other ________________	Greatly Moderately Little Not at all

Leadership

To what extent does leadership in the independent study program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 4

Other administrator Who? ____________________	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
A specific teacher Who? ____________________	Greatly Moderately Little Not at all
A specific group of teachers Who? ____________________	Greatly Moderately Little Not at all
Other ____________________	Greatly Moderately Little Not at all
Other ____________________	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 5

Independent Study Program Organization

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

Building administration	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
Teachers	Greatly Moderately Little Not at all
Students	Greatly Moderately Little Not at all
Librarian	Greatly Moderately Little Not at all
Non-certified personnel	Greatly Moderately Little Not at all

District supervisors or directors	Greatly Moderately Little Not at all
Other ____________________	Greatly Moderately Little Not at all

Outline for me the responsibilities of the audio visual director in the independent study program.

Preparation of Students

To what extent do your feeder schools prepare students to participate effectively in your independent study program?	Greatly Moderately Little Not at all

How?

AUDIO VISUAL DIRECTOR - 7

To what extent do your feeder schools provide a special program to help prepare students for the independent study program?	Greatly Moderately Little Not at all

---

Material and Human Resources

What kinds and amounts of audio visual equipment are used in the independent study program?

Equipment	Amount

Which of these are operated by the students themselves?

Describe the audio visual library available to students during independent study time. (films, tapes, records, slides, etc.) (topics, ability levels)

Medium	Materials Available

Where is the independent study audio visual equipment located?

What procedures do students follow to use audio visual resources?

To what extent are students encouraged to use staff members, from whom they are not taking classes, as resource people?	**Greatly** **Moderately** **Little** **Not at all**
To what extent do students use staff members, from whom they are not taking classes, as resource people? Why or why not?	**Greatly** **Moderately** **Little** **Not at all**

AUDIO VISUAL DIRECTOR - 9

Is there a formally organized program to facilitate and/or motivate student use of staff members as resource people?

YES
NO

Describe ______________________________

____

____

____

To what extent are students encouraged to use people in the community as resource people?

Greatly
Moderately
Little
Not at all

To what extent do students use people in the community as resource people?

Greatly
Moderately
Little
Not at all

Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people?

YES
NO

Describe ______________________________

____

____

____

AUDIO VISUAL DIRECTOR - 10

We have already talked with the people in charge of the library resources. With the exception of that area and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study?

Who or what? ______________________________

____

____

Greatly
Moderately
Little
Not at all

Attitudes Toward Program

We would like to know what you think about the following statements. Indicate the extent to which you agree or disagree by placing a check mark in the appropriate box.

1. As compared to students in schools without independent study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Dis-Agree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

AUDIO VISUAL DIRECTOR - 11

---

2. As compared to schools without independent study programs, this school:

	Strongly Agree	Agree	No Differences	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3. We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

AUDIO VISUAL DIRECTOR - 12

Evaluation

A regular and systematic procedure is followed to evaluate the success of the independent study program.	YES NO
To what extent is teacher effectiveness in the independent study program evaluated? How? ______	Greatly Moderately Little Not at all
To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives? How? ______	Greatly Moderately Little Not at all

---

To what extent are counselors involved in evaluation of student progress?

How? ____________________

____

____

____

Greatly
Moderately
Little
Not at all

To what extent do you feel that a better job of educating students is done with the independent study program than could be done without it?

Greatly
Moderately
Little
Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time to improve the independent study program by the following means?

Regular faculty meetings

Greatly
Moderately
Little
Not at all

Special meetings during the school year

Greatly
Moderately
Little
Not at all

Extended contracts

Greatly
Moderately
Little
Not at all

AUDIO VISUAL DIRECTOR - 14

Individual conferences	Greatly Moderately Little Not at all
University workshops	Greatly Moderately Little Not at all
Use of resource people	Greatly Moderately Little Not at all
Special assistance to new teachers	Greatly Moderately Little Not at all
Assistance from other teachers	Greatly Moderately Little Not at all
Printed materials - commercial	Greatly Moderately Little Not at all
Printed materials - staff devised	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 15

Other ____________________	Greatly Moderately Little Not at all

APPENDIX K

Facility	Yes or No	Disc.	Number Students	When Available to Students	Who Supervises	Kinds of Equipment	Amt.	Resources	Operation System	Who Organizes Material	Who Adm.	Staff Available	Atmos-phere	Noise

APPENDIX L

March 19, 1966

Dear Mr.

This letter is to confirm our telephone conversation of March 15, during which we established my visitation days in your school as April 14, 15, and 18. Although I am anxious to collect the data for this study, I am equally anxious just to have the opportunity to spend three days in your school.

I have enclosed a copy of a possible data collecting schedule for the three days. "First Day" items A, D, and E and "Second-Third Days" item A are particularly worthy of note since they are the least flexible and also the most difficult to schedule. Although the schedule calls for the meeting with the faculty on either the first or second day, it may be more convenient for your staff to meet on Monday. That would certainly be all right with me if it works out best for your staff.

If you should need to contact me before my arrival, mail sent to my university address will be forwarded to me. Also, I will be at on April 11, 12, and 13.

I greatly appreciate the courtesy and cooperation you have extended to me in arranging this study. I have every hope that the results will be of benefit, both, to those of you now involved and others who have yet to become involved in independent study programs.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

P. S. I am particularly anxious to receive that information sheet that you received with the first letter. I need to know the name, form, and date taken of I. Q. scores that you have on record for each of your four classes.

POSSIBLE DATA COLLECTION SCHEDULE

First Day:

a. A three hour interview with an administrator who is thoroughly familiar with the development and operation of the independent study program. This interview does need to precede the other collection of data.

b. A one hour meeting with the administrative staff. It will take less than half an hour to collect the data and the remaining time can be used to share information with you about other programs I have seen.

c. A one and one half hour interview with the librarian.

d. A one and one half hour meeting with the faculty after school. (Either first or second day)

e. Sometime during the first day, by referring to student schedules and I. Q. test scores, 48 students need to be identified from each class. This should take about two hours and some help from a counselor or secretary who knows your records would be very helpful.

Second and Third Days: (Very flexible)

a. One hour with each group of 48 students during which time they will complete a questionnaire. This is probably the greatest imposition since it will probably require some loss of class time by those involved.

b. A one and one half hour interview with the staff member responsible for your audio visual equipment and materials.

c. This leaves about one full day for observations and the sharing with you of information about other independent study programs I have observed.

(TOP)

OE 6000 (REV. 9-66)

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ABSTRACT

The purpose of this study was to identify the characteristics of certain secondary school independent study programs, determine the relationship between these characteristics and the effectiveness of the programs, and compare these existing characteristics to those recommended in the literature.

The independent study programs in nine schools were classified, with advice from a panel of five national experts, as successful or as less successful independent study programs. Case studies were written for each of the nine programs using data collected during a three-day visit to each program. Data-collection techniques included observations, interviews, and questionnaires. Comparisons were then made between characteristics found in successful programs, those found in less successful programs, and those recommended in the literature.

Factors which appeared to affect the success level of programs were (1) awareness of objectives; (2) leadership patterns; (3) appropriateness of learning activities; (4) individual attention to students; (5) restrictions on student activities; (6) variety of motivational techniques; (7) pressures on students; (8) use of aides; (9) use of physical facilities; (10) accessibility and appropriateness of printed and AV resources; (11) use made by students of their own and other teachers; (12) assistance given students in evaluating progress; and (13) emphasis placed on in-service activities for staff members.

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